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TRANSIT FACT BOOK

1947

AMERICAN TRANSIT ASSOCIATION

TRANSIT FACT BOOK

Annual Summary of Basic Data and Trends
in the Transit Industry of the United States

1947

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THIS IS THE fifth annual edition of the Transit Fact Book compiled by the statistical department of the American Transit Association. It is identified as the 1947 edition and covers the operations of the industry through the year 1946 with the latest plant and equipment data as of December 31, 1946. The figures given are in all cases totals for the whole transit industry of the United States.

The transit industry herein represented comprises all organized local passenger transportation agencies except taxicab and suburban railroads, sightseeing buses and school buses. Included are (1) electric street railways, (2) elevated and subway lines, (3) interurban electric railways, (4) local motor bus lines and (5) trolley coach lines.

The primary sources of the data herein developed are the financial and statistical reports received by the American Transit Association from transit companies representing 85 to 95 per cent of the transit industry.

Any minor differences between figures for the year ending Dec. 31, 1945 as shown in this issue of the Fact Book and as published in the 1946 edition are the result of adjustments necessary to take into account additional information received subsequent to the issuance of the 1946 edition.

Prepared by

AMERICAN TRANSIT ASSOCIATION
292 MADISON AVENUE, NEW YORK 17, N. Y.

CONTENTS

THE TRANSIT INDUSTRY 1946

1. *Number of Operating Companies* (Dec. 31, 1946) : Total	1,359
(a) Electric Railway Companies (Total)	156
Urban Surface Railway	80
Subway and Elevated Railway	5
Interurban Railway	71
Railway Exclusively	76
* Railway and Motor Bus Combined	52
Railway and Trolley Coach Combined	1
* Railway, Motor Bus & Trolley Coach Combined	27
(b) Trolley Coach Companies (Total) (All Urban)	42
Trolley Coach Exclusively	4
* Trolley Coach and Motor Bus Combined	10
(c) Motor Bus Companies (Total)	1,278
Urban Motor Bus	779
Suburban Motor Bus	499
Motor Bus Exclusively	1,189

**Included also in item (c)*

Distribution of Transit Companies by Population Groups
(Each company is counted only in the population group of the largest city it serves.)

POPULATION GROUP	ELECTRIC RAILWAYS (INCL. JOINT TROLLEY COACH AND/OR MOTOR BUS OPERA-TIONS)	TROLLEY COACH AND MOTOR BUS OPERATIONS COMBINED	TROLLEY COACH EXCLU-SIVELY	MOTOR BUS EXCLU-SIVELY	GRAND TOTAL
Over 1,000,000	12	..	..	21	33
500,000—1,000,000	10	..	..	2	12
250,000—500,000	18	1	..	30	49
100,000—250,000	18	6	3	57	84
50,000—100,000	18	3	1	97	119
Less than 50,000	9	..	..	489	498
Suburban and Other	71	..	..	493	564
TOTAL	156	10	4	1189	1359

2. *Miles of Line and Miles of Route Operated* (Dec. 31, 1946)

(a) Electric Railway Line Mileage	8,612
Surface Railway Line Mileage	*8,230*
Subway and Elevated Line Mileage	*382*
(b) Trolley Coach Line Mileage	1,201
(c) Motor Bus Line Mileage	39,800
Total Line Mileage	49,613
(d) Electric Railway—Miles of Single Track	16,742
Surface Railway—Miles of Single Track	*15,490*
Subway and Elevated—Miles of Single Track	*1,252*
(e) Trolley Coach—Miles of Negative Overhead Wire	2,333
(f) Motor Bus—Miles of Route Round Trip	91,150

3. *Passenger Vehicles Owned* (Dec. 31, 1946) : Total	90,308
(a) Electric Railway Cars	33,962
Surface Railway Cars	*24,730*
Subway and Elevated Cars	*9,232*
(b) Trolley Coaches	3,896
(c) Motor Buses	52,450

4. *Investment* (Dec. 31, 1946) : Total	$4,186,900,000
(a) Electric Railway	3,507,500,000
Surface Railway	*1,456,600,000*
Subway and Elevated	*2,050,900,000*
(b) Trolley Coach	80,200,000
(c) Motor Bus	599,200,000

5. *Operating Revenue—1946*—Total	$1,397,100,000
(a) Electric Railway	701,100,000
Surface Railway	*540,500,000*
Subway and Elevated	*160,600,000*
(b) Trolley Coach	72,100,000
(c) Motor Bus	623,900,000

6. *Passenger Revenue—1946*—Total	$1,331,500,000
(a) Electric Railway	648,900,000
Surface Railway	*488,800,000*
Subway and Elevated	*160,100,000*
(b) Trolley Coach	71,700,000
(c) Motor Bus	610,900,000

7. *Vehicle Miles Operated—1946*—Total	3,304,300,000
(a) Electric Railway Car Miles	1,353,400,000
Surface Railway Car Miles	*894,500,000*
Subway and Elevated Car Miles	*458,900,000*
(b) Trolley Coach Miles	143,700,000
(c) Motor Bus Miles	1,807,200,000
8. *Total Passengers Carried—1946*—Total	23,372,000,000
(a) Electric Railway	11,862,000,000
Surface Railway	*9,027,000,000*
Subway and Elevated	*2,835,000,000*
(b) Trolley Coach	1,311,000,000
(c) Motor Bus	10,199,000,000
9. *Revenue Passengers Carried—1946*—Total	19,119,000,000
(a) Electric Railway	9,454,000,000
Surface Railway	*6,769,000,000*
Subway and Elevated	*2,685,000,000*
(b) Trolley Coach	1,050,000,000
(c) Motor Bus	8,615,000,000
10. *Number of Employees* (Average 1946)—Total	261,000
(a) Electric Railway	125,300
Surface Railway	*92,100*
Subway and Elevated	*33,200*
(b) Trolley Coach	9,800
(c)) Motor Bus	125,900
11. *Payroll—1946*—Total	$713,000,000
(a) Electric Railway	358,800,000
Surface Railway	*257,000,000*
Subway and Elevated	*101,800,000*
(b) Trolley Coach	24,900,000
(c) Motor Bus	329,300,000
12. *Expenditures for Materials—1946*—Total	$185,030,000
(a) Maintenance Materials	79,910,000
(b) Operating Materials	105,120,000
I. Coal	*13,300,000*
II. Gasoline	*44,820,000*
III. Diesel Oil	*2,440,000*
IV. Lubricants	*3,360,000*
V. Electric Power (Purchased)	*41,200,000*
13. *Electrical Energy Consumed (Kw-Hr.)—1946*	6,791,000,000

THE YEAR 1946 IN THE TRANSIT INDUSTRY

THE year 1946 was one of surprises, adjustments and readjustments for transit. When the year began traffic had been declining since August 1945. It continued to decline in the early months of 1946. And then to the surprise of practically everybody it began to pick up again. By mid-year it was running ahead of 1945 and it continued to do so right to the end of the year. Industrial production and employment had risen again almost to their war-time levels. The result was that the total number of passengers carried in 1946 by the industry as a whole exceeded by a small margin the total of 1945.

The respite was very welcome. For while revenues along with traffic registered an all-time high expenses were creeping up on them and the margin of profit was being reduced. Labor was pressing relentlessly for higher wages and for the most part getting what it wanted. The cost of materials kept pace with wages. At the same time the standard of service was raised. Managements knew that wartime standards were out. In spite of the higher cost of operation they simply had to give more vehicle miles for each fare collected. Adjustment of service was the order of the day.

Right there difficulties developed and readjustments of plans became necessary. The new vehicles with which to increase and improve service could not be had. The total manufacturing capacity of the industry, if available, would not have been sufficient to meet the pent-up demands, but that capacity was seriously reduced by industrial strikes and shortages of certain essential materials. These conditions in conjunction with the continued high level of traffic made it impossible for many companies to give the standard of service they would like to have given.

There were other companies, however, that experienced difficulties of a quite different type. These were the companies serving the great war industry centers and had had the greatest increases in traffic. With the end of the war this traffic dropped off rapidly. These companies were subject to the same increases in operating cost as other companies but their traffic was draining away. Before the end of the year 35 such companies were compelled to resort to fare increases to make ends meet and other companies were beginning to think along the same lines as the year ended. It was one of the significant developments of the year.

RESULTS OF OPERATION IN 1946

THE operating revenue of the transit industry reached a new high in 1946, but for the third successive year the net operating income available to meet fixed charges and to pay a return on the investment declined. That briefly was the result of operations in 1946 which are summarized in Chart I.

The record operating revenue of $1,397,100,000 was $16,-700,000 or 1.21 per cent more than in 1945, but expenses increased $62,290,000 or 5.84 per cent. Net operating revenue in consequence was reduced by $45,590,000 or 14.55 per cent. However, lower income taxes and the elimination of the excess profits tax produced a saving of $35,510,000 in taxes and reduced the decrease in operating income to $10,080,000 or 6.78 per cent.

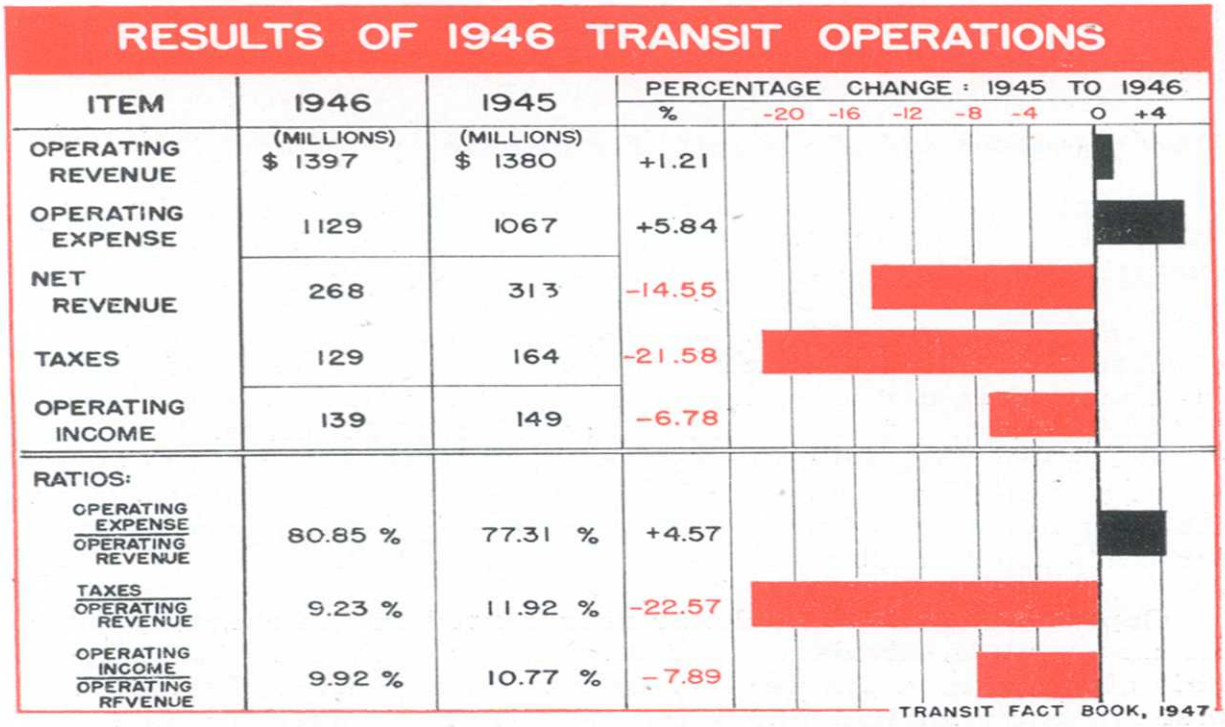

CHART I

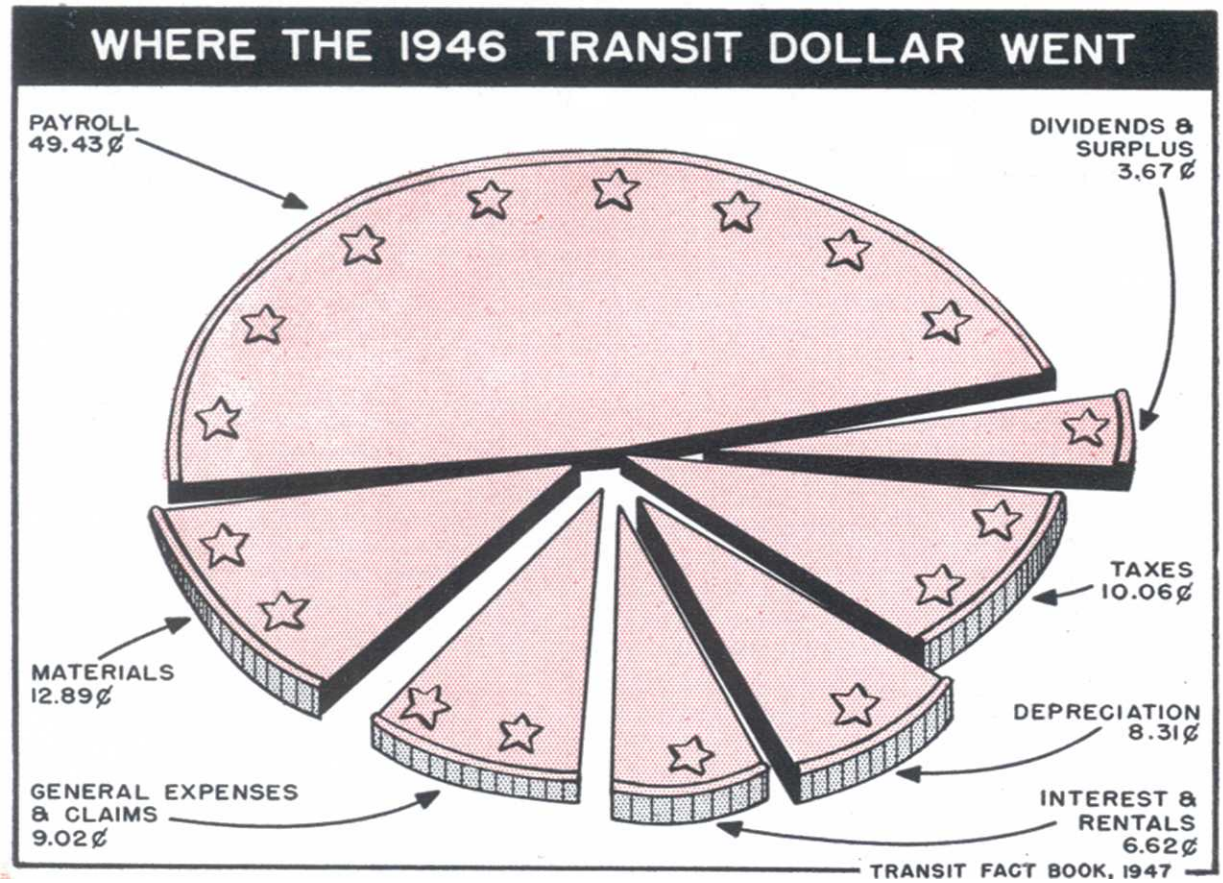

CHART II

The Dollar of Transit Revenue

Chart II shows the distribution of the transit dollar of revenue based on the operations of surface lines only, that is, with the operations of the subway and elevated lines omitted.

Practically one-half of the transit dollar, 49.43 cents, goes to meet transit's payroll. During the war when revenue was increasing faster than expenses, labor's share of the transit dollar shrunk to 42.30 cents. Taxes at that time took 15.10 cents. Expenses, however, are now catching up and labor's share of the dollar is now greater than ever before. The portion going to taxes on the other hand has declined to 10.06 cents when allowance is made for carry-back credits from the excess profits tax.

Capital's share of the dollar represented in the chart by interest and rentals, dividends and surplus, amounted to 10.29 cents. This also represents a decline. As a matter of fact, the increased share of the transit dollar going to labor has forced all other elements in the cost of service to take a smaller share.

TREND OF OPERATIONS 1932 -1946

THE financial results of transit operations since 1932 are presented in Table I and Chart III. In this 15-year period the year 1946 may be classed as one of the more successful from the stand-

TABLE NO. 1

Results of Transit Operations in the United States
1932 to 1946 Inclusive

(THOUSANDS OF DOLLARS

YEAR	OPERATING REVENUE	OPERATING EXPENSES	NET REVENUE	TAXES
1932	$696,490	$562,850	$133,640	$51,021
1933	642,400	502,420	139,980	47,370
1934	674,900	525,490	149,410	49,183
1935	681,400	534,930	146,470	50,458
1936	727,900	565,180	162,720	56,920
1937	733,500	588,680	144,820	63,504
1938	700,800	579,690	121,110	65,723
1939	720,700	586,600	134,100	67,499
1940	737,000	598,030	138,970	62,688
1941	800,300	644,260	156,040	66,803
1942	1,040,000	769,390	270,610	128,650
1943	1,294,000	932,970	361,030	186,340
1944	1,362,300	1,012,070	350,230	189,250
1945	1,380,400	1,067,140	313,260	164,530
1946	1,397,100	1,129,430	267,670	129,020

Table 1—(Continued)

YEAR	OPERATING INCOME	OPERATING RATIO	TAXES IN % OF REVENUE	OPERATING INCOME IN % OF REVENUE
1932	$82,619	80.81%	7.33%	11.86%
1933	92,610	78.21	7.37	14.42
1934	100,227	77.86	7.29	14.85
1935	96,012	78.50	7.41	14.09
1936	105,800	77.65	7.82	14.53
1937	81,316	80.26	8.66	11.09
1938	55,387	82.72	9.38	7.90
1939	66,601	81.39	9.37	9.24
1940	76,282	81.14	8.51	10.35
1941	89,237	80.50	8.35	11.15
1942	141,960	73.98	12.37	13.65
1943	174,690	72.10	14.40	13.50
1944	160,980	74.29	13.89	11.82
1945	148,730	77.31	11.92	10.77
1946	138,650	80.85	9.23	9.92

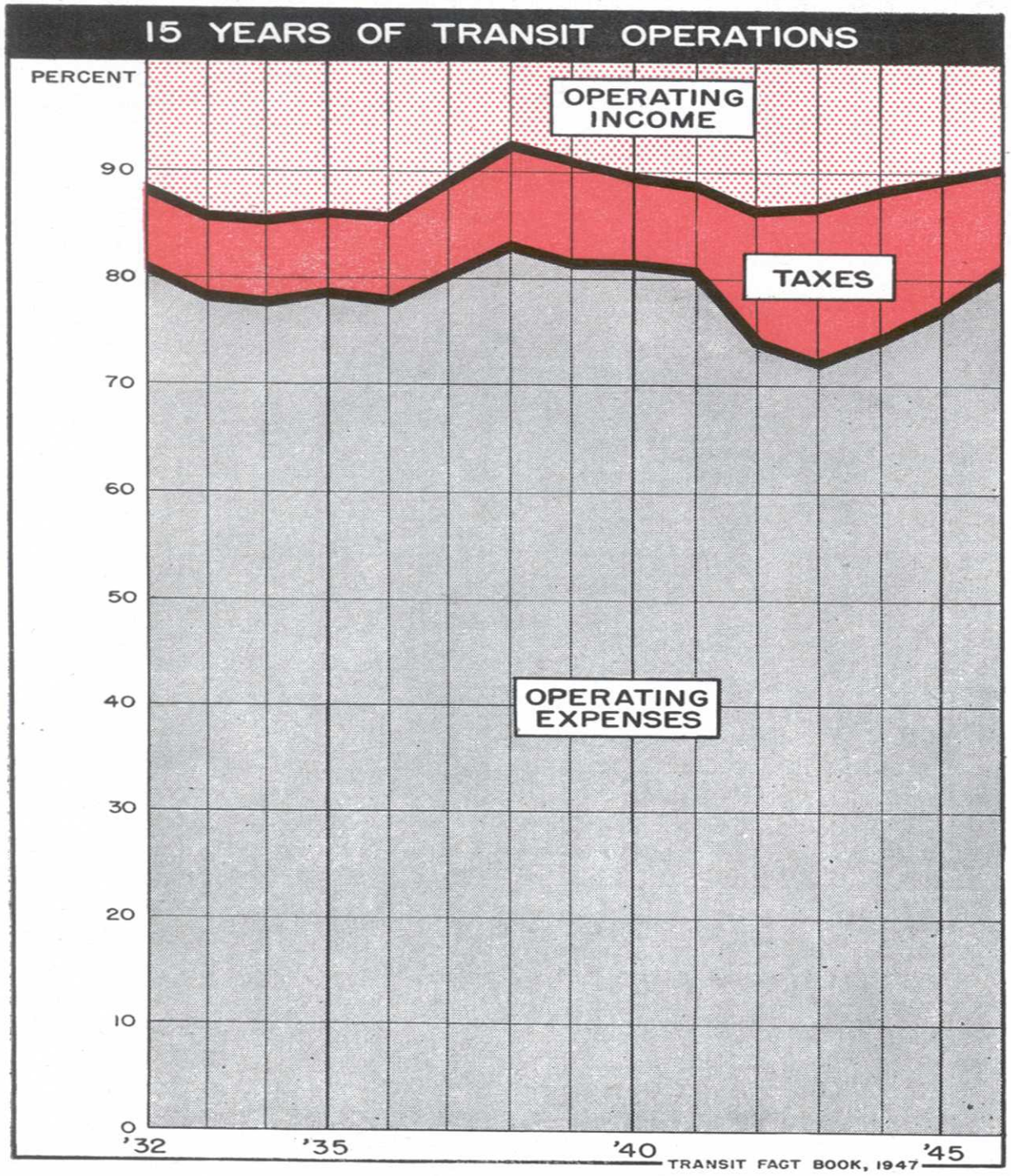

CHART III

point of volume of business and the return earned on the investment. Only the four preceding years 1942-1945 made a better showing in this respect.

From the standpoint of efficiency of operation the 1946 record is not so good. In spite of the large revenues the operating ratio in 1946 was higher than in all but three of the 15 years since 1932. And in only two years was the ratio of net operating income to operating revenue as low as in 1946. In that year it was 9.92 per cent which compares with 7.90 per cent in 1938 and 9.24 in 1939 the two low years.

Transit Taxes in 1946

The total taxes paid by the transit industry in 1946 subdivided between federal taxes and state, county and local taxes, are shown in Table 2.

The grand total of all transit taxes in 1946, $129,020,000, represents a decrease of slightly more than 21 per cent from the total of $169,530,000 in 1945. The elimination of the excess profits tax was one factor in this decline and tax credit carry-backs from the excess profits tax which operated to reduce income taxes were contributing factors. The total of state, county and local taxes was increased by nearly four million dollars and substantially increased the proportion of nonfederal taxes.

For the first time since before the war the federal taxes constitute less than half the total taxes,—45.48 per cent as against 54.52 per cent for state, county and local taxes.

TABLE NO. 2
Transit Taxes in 1946

	AMOUNT	PERCENT DISTRIBUTION
Federal Taxes (Total)	$58,680,000	45.48%
	41,700,000	32.32
Other Federal Taxes	16,980,000	13.16
State, County and Local Taxes	70,340,000	54.52
TOTAL TAXES	$129,020,000	100.00%

*Includes credits applicable to 1946 taxes arising from excess profits tax credit carry back.

TRANSIT TRAFFIC

Total Passengers in 1946

TABLE 3 shows the total number of passengers carried on the transit lines of the United States in 1946.

In Table 3 passengers are classified according to the type of service used and it shows that slightly more than 56 per cent of all transit passengers were carried in electrically propelled vehicles in 1946. The remainder were carried in gasoline or diesel buses.

The 56 per cent transported in electrical vehicles comprised 13,173,000,000 passengers of which 9,027,000,000 were passengers on surface street railways, 2,835,000,000 were rapid transit passengers and 1,311,000,000 were trolley coach passengers. The buses carried 10,199,000,000 passengers.

More than half of all transit passengers were in cities of 500,000 population and over. These large cities, however, accounted for only a little more than a quarter of the bus passengers, and less than a quarter of the trolley coach passengers. But more than

TABLE NO. 3

Total Passengers Carried on Transit Lines of the United States in 1946
Distributed by Type of Service and Population Groups

	RAILWAY (Millions)	TROLLEY COACH (Millions)	MOTOR BUS (Millions)	GRAND TOTAL (Millions)
Subway and Elevated . . .	2,835	. . . . .	. . . . .	2,835
Surface Lines: (Population Group)				
Over 1,000,000	3,941	109	1,922	5,972
500,000—1,000,000	2,402	196	936	3,534
250,000—500,000	1,245	528	1,911	3,684
100,000—250,000	553	252	1,959	2,764
50,000—100,000	408	131	1,599	2,138
Less Than 50,000	194	95	733	1,022
Suburban and Other	284	. . . .	1,139	1,423
TOTAL	11,862	1,311	10,199	23,372

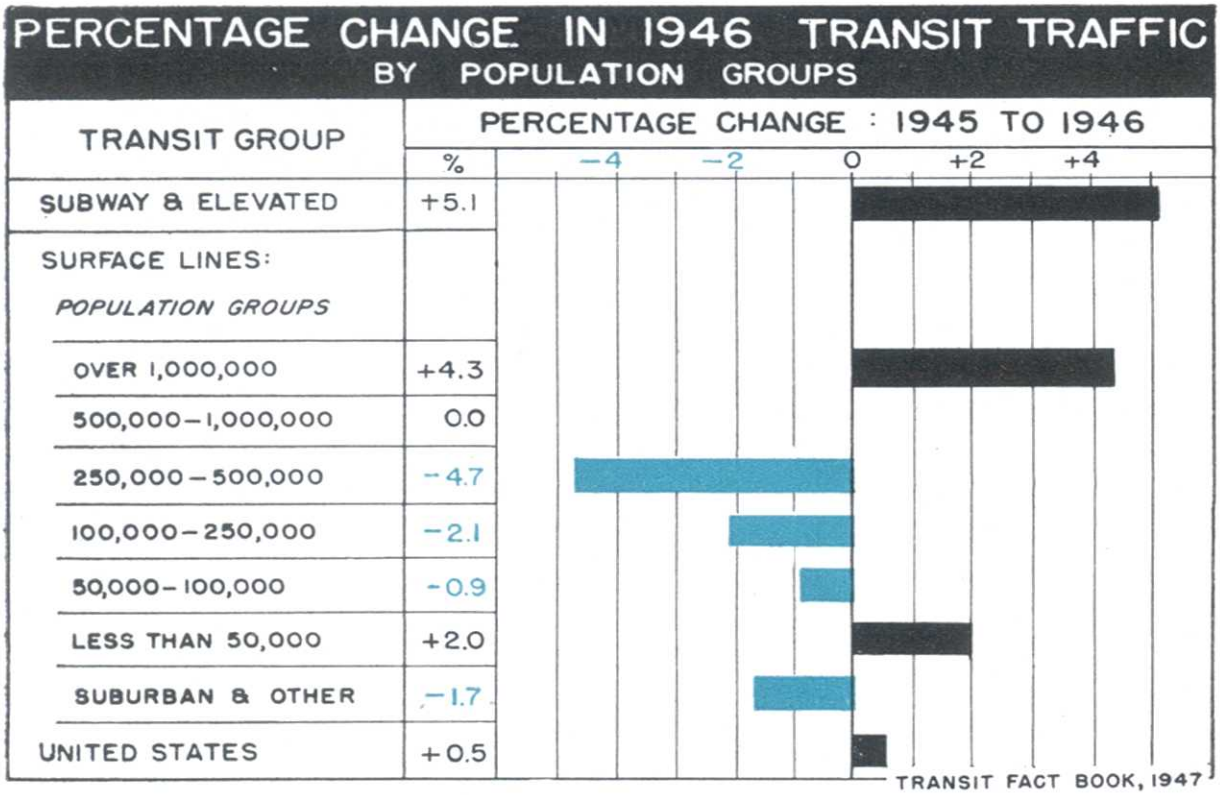

CHART IV

75 per cent of the railway passengers ride in these cities. Even if the rapid transit passengers are eliminated the large cities, over 500,000 population, account for 53 per cent of the surface railway passengers.

Comparison With 1945

A comparison of passenger traffic in 1945 and 1946 is presented in Chart IV for all of the population classes shown in Table 3. The total number of passengers carried in 1946 was 23,372,000,000 and this represented an increase of 0.5 per cent over 1945.

There was considerable variation in the traffic trends in the different classifications. Subway and elevated passengers which represent about 12 per cent of the total increased 5.1 per cent over 1945 and this was the largest increase reported by any group. Of the seven groups of passengers on surface vehicles only two reported increases, four had decreases and one reported the same number of passengers as in 1945. This last group comprises the

cities between 500,000 and 1,000,000 population. The groups reporting increases were the cities over 1000,000 population, 4.3 per cent, and the cities of less than 50,000 population, 2.0 per cent.

The three groups comprising the cities between 50,000 and 500,000 population all reported decreases as did also the suburban companies.

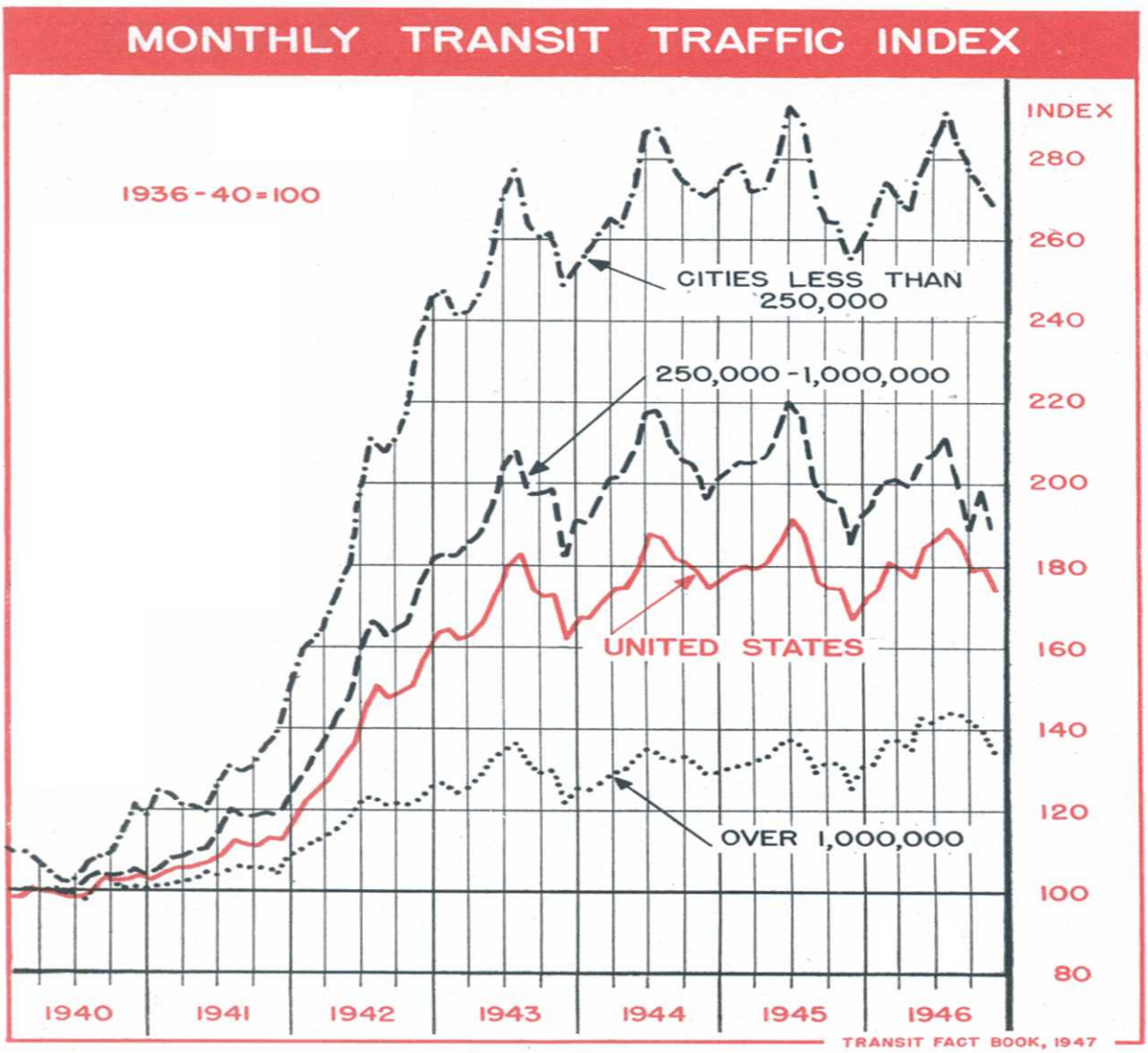

CHART V

Monthly Traffic Index

The trend of the A.T.A. monthly traffic index is presented graphically in Chart V for the period from January 1940 to December 1946. The index is based on the averages of the months of years 1936 to 1940, the average of each month during this period being taken separately as 100 to eliminate the normal seasonal variations. The index is also adjusted for variations in the number of working days in the month and for fluctuations in the occurrence of Easter.

In addition to the national index separate indexes are shown in the chart for three groups of cities: those over 1,000,000 population, those between 250,000 and 1,000,000 and those under 250,000.

In 1946 the group of largest cities, over 1,000,000 population, continued to advance but the other two groups declined.

TABLE NO. 4

Total Transit Passengers in the United States by Types of Service—1922 to 1946

CALENDAR YEAR	RAILWAY			TROLLEY COACH	MOTOR BUS	GRAND TOTAL
	SURFACE (Millions)	SUBWAY & ELEVATED (Millions)	TOTAL (Millions)	(Millions)	(Millions)	(Millions)
1922 . .	13,389	1,942	15,331	. . . . .	404	15,735
1923 . .	13,569	2,081	15,650	. . . . .	661	16,311
1924 . .	13,105	2,207	15,312	. . . . .	989	16,301
1925 . .	12,903	2,264	15,167	. . . . .	1,484	16,651
1926 . .	12,875	2,350	15,225	. . . . .	2,009	17,234
1927 . .	12,450	2,451	14,901	. . . . .	2,300	17,201
1928 . .	12,026	2,492	14,518	3	2,468	16,989
1929 . .	11,787	2,571	14,358	5	2,622	16,985
1930 . .	10,513	2,559	13,072	16	2,479	15,567
1931 . .	9,175	2,408	11,583	28	2,313	13,924
1932 . .	7,648	2,204	9,852	37	2,136	12,025
1933 . .	7,074	2,133	9,207	45	2,075	11,327
1934 . .	7,394	2,206	9,600	68	2,370	12,038
1935 . .	7,276	2,236	9,512	96	2,618	12,226
1936 . .	7,501	2,323	9,824	143	3,179	13,146
1937 . .	7,161	2,307	9,468	289	3,489	13,246
1938 . .	6,545	2,236	8,781	389	3,475	12,645
1939 . .	6,171	2,368	8,539	445	3,853	12,837
1940 . .	5,943	2,382	8,325	534	4,239	13,098
1941 . .	6,081	2,421	8,502	652	4,931	14,085
1942 . .	7,290	2,566	9,856	899	7,245	18,000
1943 . .	9,150	2,656	11,806	1,175	9,019	22,000
1944 . .	9,516	2,621	12,137	1,234	9,646	23,017
1945 . .	9,426	2,698	12,124	1,244	9,886	23,254
1946 . .	9,027	2,835	11,862	1,311	10,199	23,372

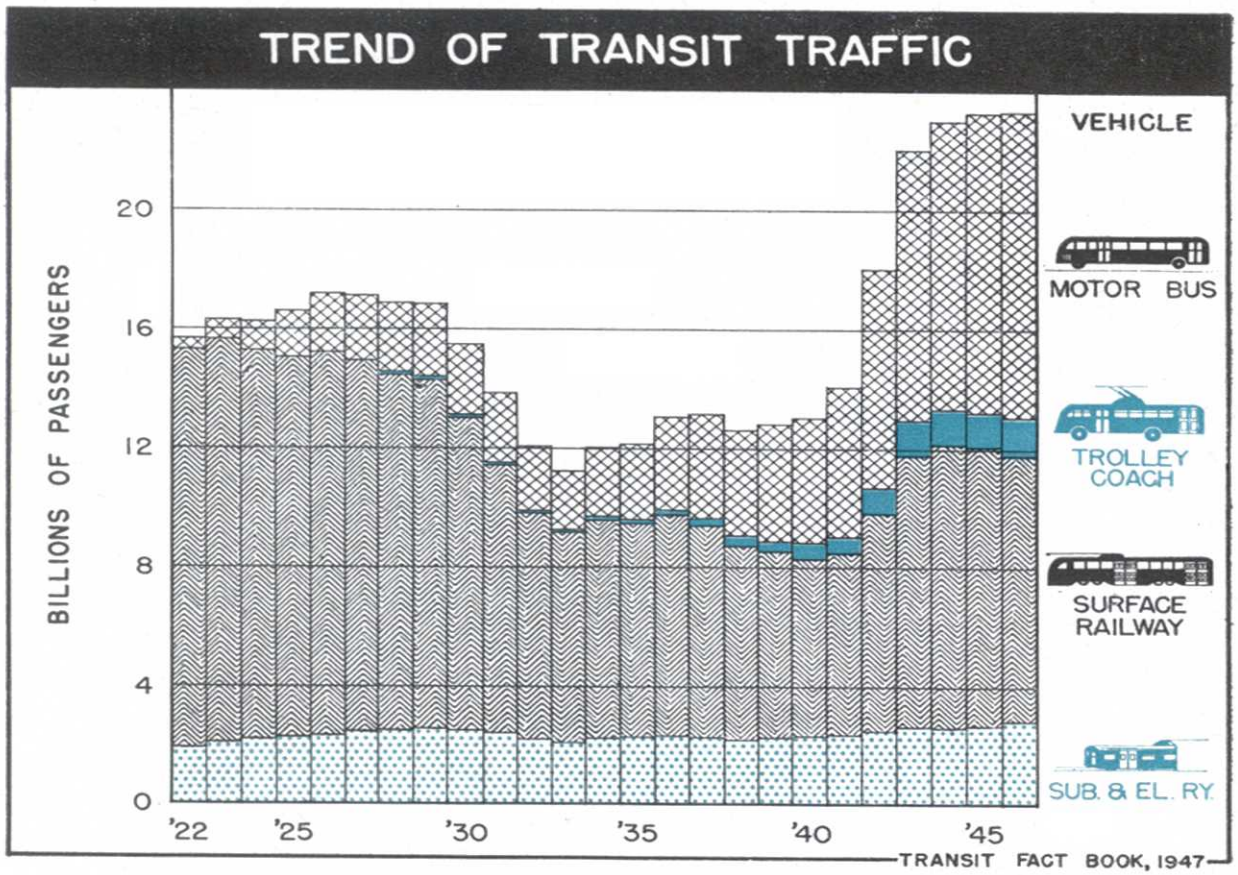

CHART VI

Total Passengers 1922-1946

Table 4 shows the total number of passengers carried on the transit lines of the United States annually since 1922. Surface railway, subway and elevated, motor bus and trolley coach traffic are shown separately in each year.

In 1946 transit traffic reached the highest level it has ever attained topping by a very small amount the previous record-breaking year 1945. New peaks were established in 1946 by the buses, the trolley coaches and the subway and elevated lines, but not by the surface railways. Their peak was reached back in 1923. For transit as a whole, however, the peak of traffic prior to the present one was reached in 1926 when slightly more than 17 billion passengers were carried.

The total continued to hover around 17 billions until the depression. Then for four years following 1929 it declined continuously, finally reaching its low point at 11⅓ billions in 1933. Most of the loss was in street car traffic, but even the buses, which had been rapidly expanding their operations prior to 1929, lost traffic between 1929 and 1933.

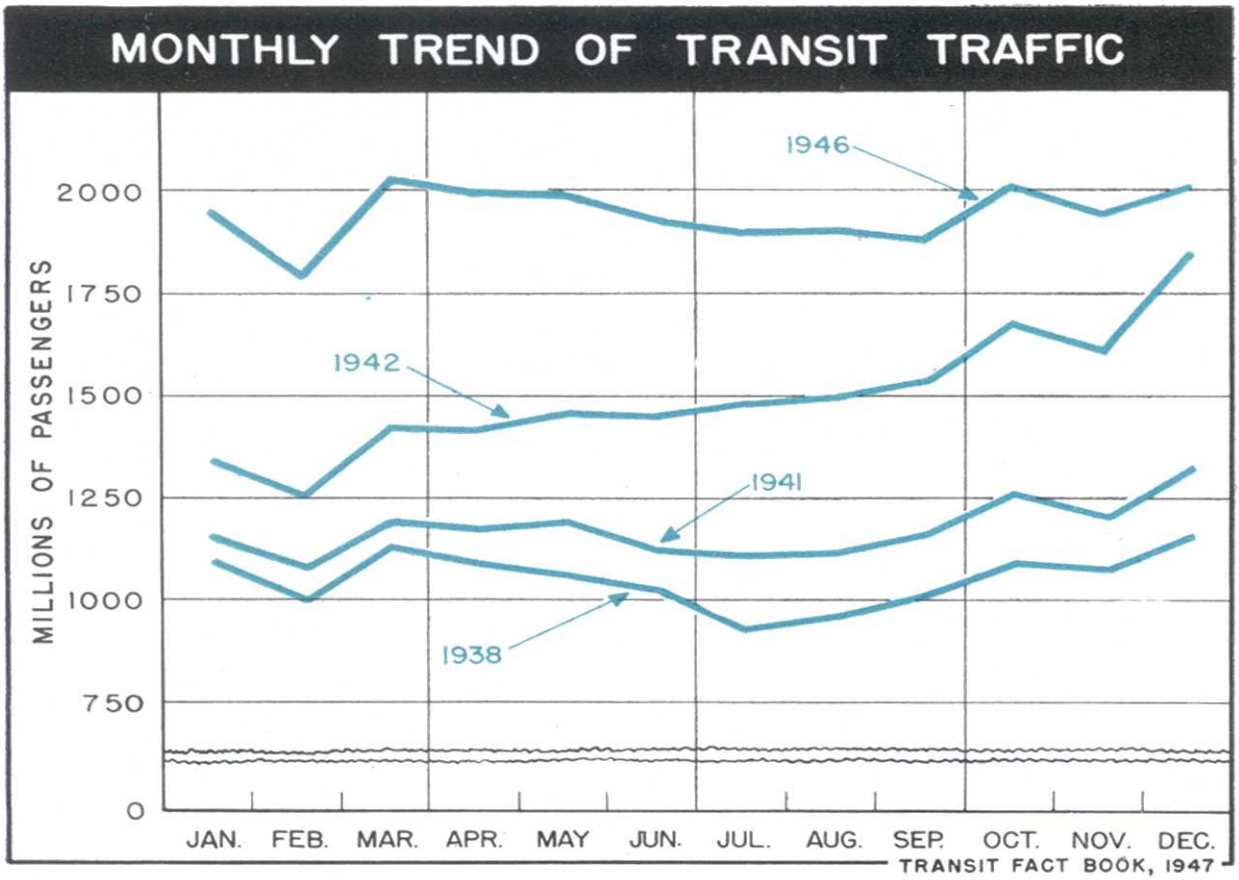

CHART VII

Monthly Pattern of Traffic

The monthly trend of transit traffic is shown in Chart VII. The war had the effect of distorting the normal monthly pattern and it has not yet recovered. The years plotted in the chart, 1938, 1941, 1942 and 1946, present the distortion and the extent to which the normal pattern had reestablished itself in postwar 1946.

The curve for the year 1938 illustrates approximately the normal monthly pattern—a high level of traffic in the winter and early spring, a gradual decline to the year's low in July-August and then recovery to December, usually the high month of the year. In 1941 the summer decline was not as deep as usual and in 1942 there was no dip in the summer. This was partly because so many workers did not take summer vacations in that year due to war work and partly because traffic was increasing so rapidly during the year that any loss due to seasonal causes was obscured by the general rise.

The 1946 curve approaches more nearly to the normal, but it is evident that the normal monthly pattern has not entirely reasserted itself yet.

Rides Per Capita 1924-1946

In Chart VIII the trend of transit riding in relation to the urban population of the United States over the period 1924 to 1946 is shown. The urban population includes the population of all incorporated places of 2,500 inhabitants and over and certain other areas included in the urban population, as defined by the U. S. Bureau of the Census.

The basic data plotted in the chart are given in Table 5. The respective trends of the urban population, the total number of transit rides and the number of rides per capita have been shown by means of index numbers with the year 1924 used as the base of 100 for each factor.

More accurate data on population trends during the war years

TABLE NO. 5

Urban Population, Total Rides and Rides Per Capita
1924 to 1946 Inclusive

YEAR	URBAN POPULATION (Millions)	TOTAL RIDES (Millions)	RIDES PER CAPITA OF POPULATION	INDEXES (1924=100)		
				POPULATION	RIDES	RIDES PER CAPITA
1924 . .	60.1	16,301	271	100.0	100.0	100.0
1925 . .	61.6	16,651	270	102.5	102.1	99.6
1926 . .	63.0	17,234	274	104.8	105.7	101.1
1927 . .	64.5	17,201	267	107.3	105.5	98.5
1928 . .	66.0	16,989	257	109.8	104.2	94.8
1929 . .	67.5	16,985	252	112.3	104.2	93.0
1930 . .	69.0	15,567	226	114.8	95.5	83.4
1931 . .	69.5	13,924	200	115.6	85.4	73.8
1932 . .	70.0	12,025	172	116.5	73.8	63.5
1933 . .	70.6	11,327	160	117.5	69.5	59.0
1934 . .	71.1	12,038	169	118.3	73.8	62.4
1935 . .	71.7	12,226	171	119.3	75.0	63.1
1936 . .	72.2	13,146	182	120.1	80.6	67.2
1937 . .	72.8	13,246	182	121.1	81.3	67.2
1938 . .	73.3	12,645	173	122.0	77.6	63.8
1939 . .	73.9	12,837	174	123.0	78.7	64.2
1940 . .	74.4	13,098	176	123.8	80.4	64.9
1941 . .	75.1	14,085	188	125.0	86.4	69.4
1942 . .	75.3	18,000	239	125.3	110.4	88.2
1943 . .	75.7	22,000	291	126.0	135.0	107.4
1944 . .	74.6	23,017	309	124.1	141.2	114.0
1945 . .	74.5	23,254	312	124.0	142.7	115.1
1946 . .	82.8	23,372	282	137.8	143.4	104.1

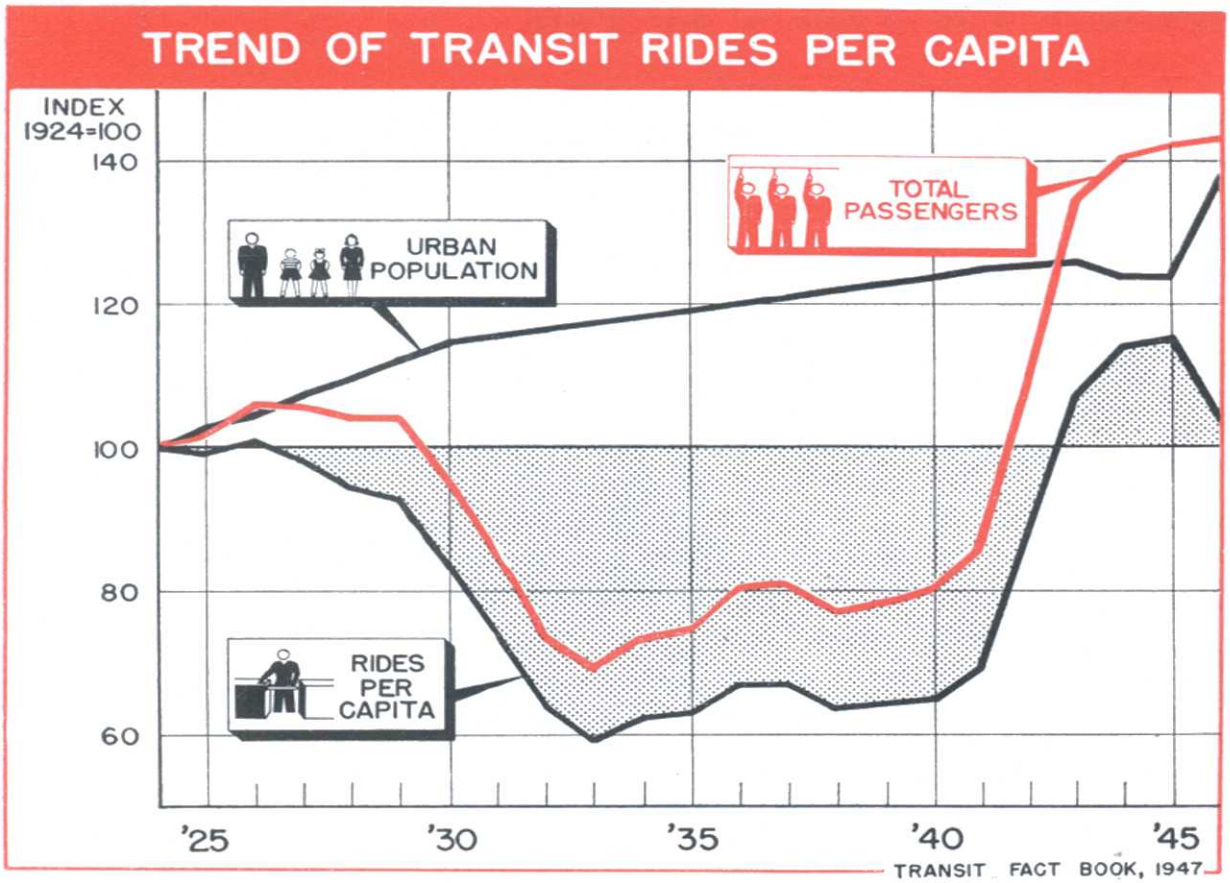

CHART VIII

than could be obtained in 1946 are now available and the figures on population and rides per capita for the years 1942 to 1945 shown in the 1946 Fact Book have been revised. The effect has been to increase the urban population in all but one of the war years and to reduce the number of rides per capita of population in those years.

The net result of the removal of a fairly large segment of the population from civilian life into the armed forces and then back again to civilian life and the movement of a considerable volume of people from rural sections into urban centers for war work, has been a substantial increase in the urban population at the end of the war over the prewar level. The slight increase in transit traffic in 1946 over 1945 was nowhere near in proportion to the increase in urban population and the result was a sharp drop in the number of rides per capita of urban population, from 312 in 1945 to 282 in 1946. This expansion of the urban population in 1946 was undoubtedly a factor in the high level of transit traffic reached in that year.

Revenue Passengers in 1946

Table 6 shows the number of revenue passengers carried in 1946 classified according to the type of service and population group. The number of revenue passengers is equivalent to the number of completed journeys taken by paying passengers. Transfer rides on both revenue and free transfers are excluded, as are also all free rides.

With some minor variations revenue passengers are distributed among the three types of service and among the several population groups in the same proportions as the total passengers in Table 3. The principal variation is in the subway and elevated passengers. In 1946 they comprised 28 per cent of all the railway revenue passengers, but only 24 per cent of the total railway passengers. This is because there are relatively fewer transfer passengers on the subway and elevated lines than on the surface railways. However, there is a large volume of physical transferring within prepayment areas on the subway and elevated lines, particularly in New York, that is not recorded and hence is not reflected in the statistics. There is also somewhat less transferring on the buses proportionately than on the surface railways. Revenue bus passengers are 45.1 per cent of all revenue passengers, while total bus passengers are 43.7 per cent of total passengers.

TABLE NO. 6

Revenue Passengers Carried on Transit Lines of United States in 1946
Distributed by Type of Service and Population Groups

	RAILWAY (Millions)	TROLLEY COACH (Millions)	MOTOR BUS (Millions)	GRAND TOTAL (Millions)
Subway and Elevated .	2,685	. . . . .	. . . . .	2,685
Surface Lines: (Population Group)				
Over 1,000,000	2,855	63	1,707	4,625
500,000—1,000,000 . .	1,752	144	652	2,548
250,000—500,000 . . .	898	424	1,468	2,790
100,000—250,000 . . .	451	223	1,638	2,312
50,000—100,000	366	114	1,402	1,882
Less Than 50,000	181	82	689	952
Suburban and Other . .	266	. . . . .	1,059	1,325
TOTAL	9,454	1,050	8,615	19,119

TABLE NO. 7

Revenue Passengers Carried on Transit Lines of the United States Distributed by Types of Service—1926-1946

CAL-ENDAR YEAR	RAILWAY			TROLLEY COACH	MOTOR BUS	GRAND TOTAL
	SURFACE	SUBWAY AND ELEVATED	TOTAL			
	(Millions)	(Millions)	(Millions)	(Millions)	(Millions)	(Millions)
1926 . .	9,774.4	2,333.3	12,108.0	. . . . .	1,777.1	13,885.1
1927 . .	9,404.7	2,440.4	11,845.1	. . . . .	2,027.9	13,873.0
1928 . .	8,970.9	2,484.1	11,455.0	2.4	2,171.8	13,629.2
1929 . .	8,728.1	2,570.9	11,299.0	4.0	2,300.8	13,603.8
1930 . .	7,782.1	2,563.9	10,346.0	12.9	2,169.1	12,528.0
1931 . .	6,751.0	2,415.0	9,166.0	22.5	2,018.1	11,206.6
1932 . .	5,544.7	2,212.8	7,757.5	29.6	1,862.4	9,649.5
1933 . .	5,107.7	2,147.2	7,254.9	35.1	1,815.6	9,105.6
1934 . .	5,315.6	2,222.1	7,537.7	54.3	2,079.7	9,671.7
1935 . .	5,156.2	2,252.3	7,408.5	76.5	2,297.3	9,782.3
1936 . .	5,276.0	2,339.4	7,615.4	122.6	2,773.7	10,511.7
1937 . .	4,979.4	2,228.2	7,207.6	230.8	2,997.1	10,435.5
1938 . .	4,439.4	2,261.8	6,701.2	312.4	2,971.1	9,984.7
1939 . .	4,310.4	2,289.8	6,600.2	357.8	3,294.3	10,252.3
1940 . .	4,182.5	2,281.9	6,464.4	419.2	3,620.1	10,503.7
1941 . .	4,276.3	2,298.1	6,574.4	521.0	4,206.1	11,301.5
1942 . .	5,141.5	2,447.2	7,588.7	718.0	6,194.5	14,501.2
1943 . .	6,893.7	2,516.3	9,410.0	938.0	7,570.0	17,918.0
1944 . .	7,169.4	2,483.1	9,652.5	986.8	8,096.1	18,735.4
1945 . .	7,080.9	2,555.1	9,636.0	1,001.2	8,344.7	18,981.9
1946 . .	6,769.0	2,685.0	9,454.0	1,050.0	8,615.0	19,119.0

Trend of Revenue Passengers 1926-1946

In Table 7 is shown the number of revenue passengers carried on transit lines in the years 1926 to 1946 inclusive, classified in each year according to the type of service. The modern trolley coach dates from the year 1928 and in the table the record of revenue passengers carried on trolley coaches begins with that year.

Revenue passengers constitute approximately 82 per cent of total transit passengers and over the years they follow the same trends as total passengers. Since about 1935, however, the number of revenue passengers has been inflated somewhat by the use of the weekly pass since all of the companies having weekly passes do not distinguish between initial and transfer rides on the passes. Some companies count all pass rides as revenue rides; hence the proportion of revenue passengers is increased and that of transfer passengers decreased.

TRANSIT REVENUES

Operating Revenue

IN Chart IX the record of monthly revenue in the years 1945 and 1946 and the per cent change of each month from the previous year is presented graphically. It shows how revenue declined

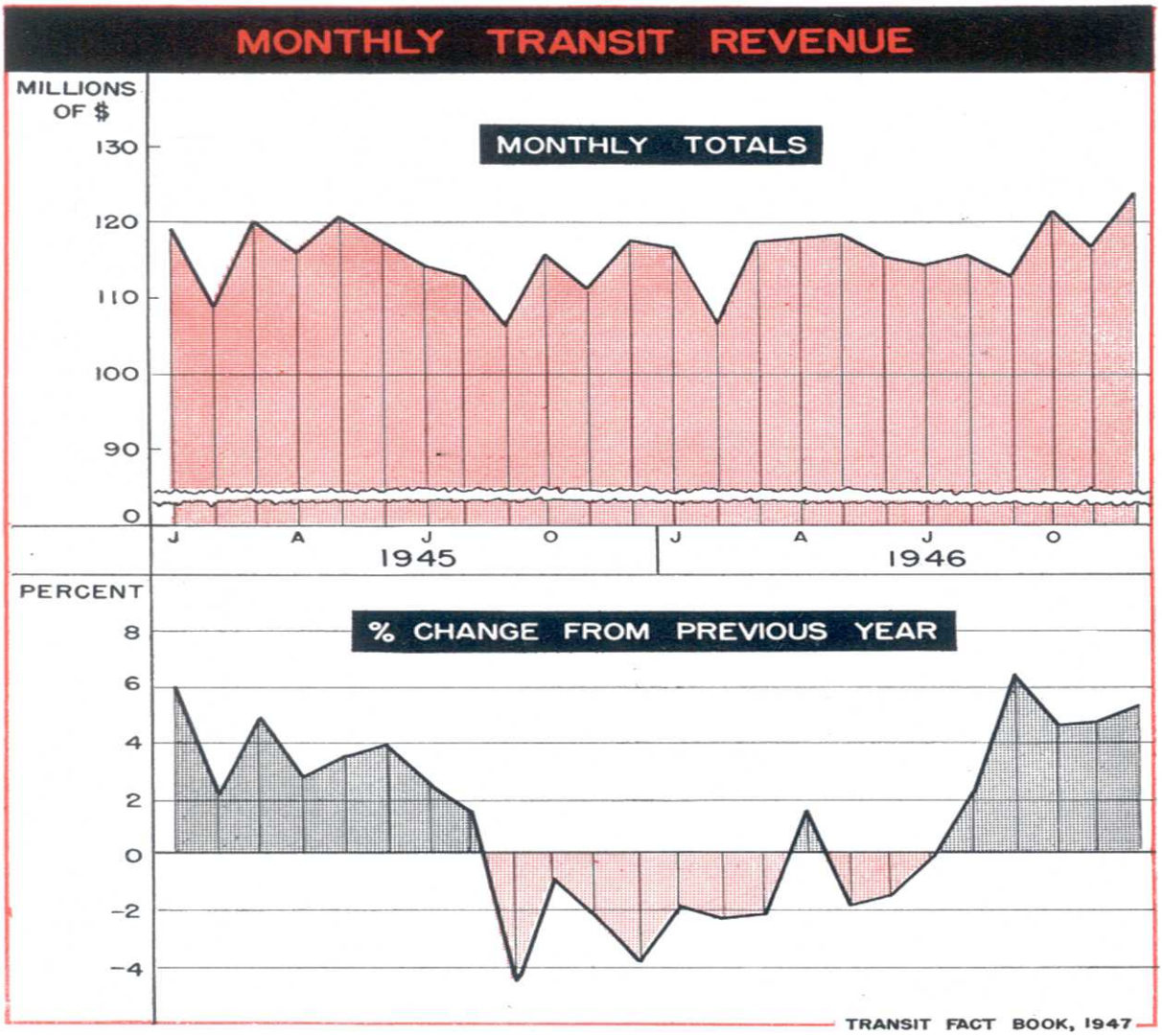

CHART IX

TABLE NO. 8

Transit Operating Revenue by Months—1946, 1945 and 1944

	1946 (Thousands)	1945 (Thousands)	% CHANGE (1946-1945)	1944 (Thousands)	% CHANGE (1945-1944)
January	$116,800	$119,000	-1.85%	$112,100	+6.16%
February	106,300	108,800	-2.30	106,400	+2.26
March	117,500	120,100	-2.17	114,400	+4.98
April	117,800	115,900	+1.64	112,700	+2.84
May	118,500	120,800	-1.90	116,600	+3.60
June	115,800	117,600	-1.53	113,100	+3.98
July	114,300	114,500	-0.18	111,700	+2.51
August	115,700	113,100	+2.30	111,300	+1.62
September	112,900	106,100	+6.41	111,200	-4.59
October	121,400	116,000	+4.66	117,100	-0.94
November	116,500	111,200	+4.77	113,600	-2.11
December	123,600	117,300	+5.37	122,100	-3.93
TOTAL	$1,397,100	$1,380,400	+1.21	1,362,300	+1.33

after V-J Day, continued to run behind throughout the second half of 1945 and the first half of 1946 and then went ahead again in the second half of 1946.

The total operating revenue of transit lines in the United States in 1946 is shown in Table 9 distributed according to the type of service and the population groups from which it was derived.

TABLE NO. 9

Transit Operating Revenue for Year 1946 Distributed by Types of Service and Population Groups

	RAILWAY (Millions)	TROLLEY COACH (Millions)	MOTOR BUS (Millions)	GRAND TOTAL (Millions)
Subway and Elevated	$160.6	....	....	$160.6
Surface Lines: (Population Group)				
Over 1,000,000	199.4	$4.7	$115.3	319.4
500,000—1,000,000	130.0	9.6	48.6	188.2
250,000—500,000	72.2	30.4	109.3	211.9
100,000—250,000	33.2	13.4	127.3	173.9
50,000—100,000	26.9	7.8	91.5	126.2
Less Than 50,000	10.7	6.2	43.1	60.0
Suburban and Other	68.1	....	88.8	156.9
TOTAL	701.1	72.1	623.9	$1,397.1

Of the total of $1,397,100,000 taken in by transit in 1946, $701,100,000 was derived from railway operation and $623,900,000 from bus operation. However, the railway revenue includes $160,-600,000 produced by the subway and elevated lines. The revenue of the surface railways was $540,500,000 considerably less than that produced by the buses.

Trend of Operating Revenue 1926-1946

The trend of transit operating revenue from 1926 to 1946 is shown in Table 10 and is presented graphically in Chart X. It is classified according to the type of service and the trends of the revenues of the surface railways, the subway and elevated lines, the motor buses and the trolley coaches are presented separately.

The striking feature of the record is the increase in motor bus and trolley coach revenues over the period and the decline in the revenue of the surface railway. Stimulated by the war effort the revenues of the surface railways staged something of a comeback

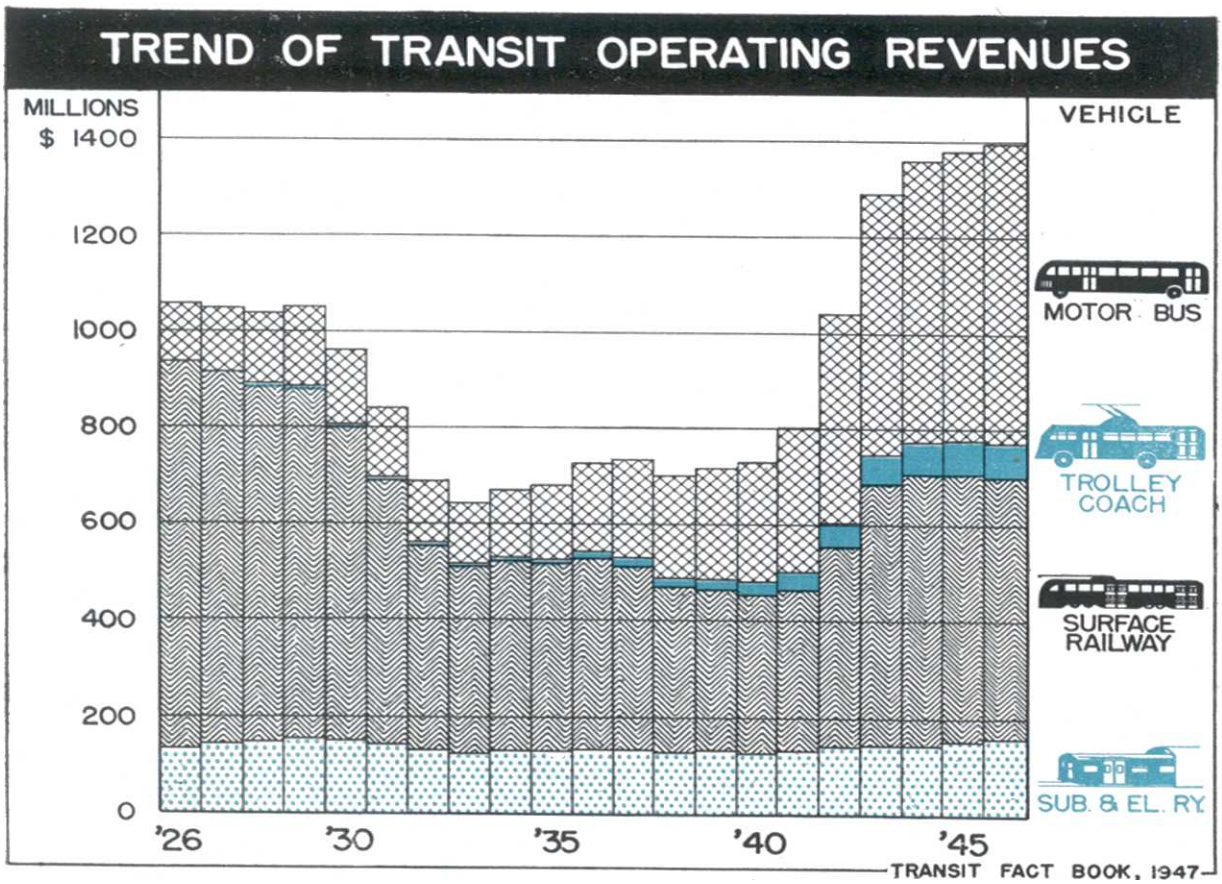

CHART X

TABLE NO. 10

Trend and Distribution of Transit Operating Revenue in the United States by Types of Service—1926-1946

CAL-ENDAR YEAR	RAILWAY			TROLLEY COACH	MOTOR BUS	GRAND TOTAL
	SURFACE (Millions)	SUBWAY AND ELEVATED (Millions)	TOTAL (Millions)	(Millions)	(Millions)	(Millions)
1926 . .	$799.7	$138.6	$938.3	. . . . .	$119.2	$1,057.5
1927 . .	773.9	145.0	918.9	. . . . .	135.3	1,054.2
1928 . .	744.7	148.2	892.9	$ .3	146.9	1,040.1
1929 . .	732.2	154.6	886.8	.6	165.1	1,052.5
1930 . .	649.3	153.6	802.9	1.7	158.4	963.0
1931 . .	548.9	144.1	693.0	2.2	146.9	842.1
1932 . .	432.5	131.2	563.7	2.7	130.1	696.5
1933 . .	388.9	126.4	515.3	3.0	124.1	642.4
1934 . .	397.8	130.6	528.4	4.2	142.3	674.9
1935 . .	388.0	131.8	519.8	5.5	156.1	681.4
1936 . .	397.8	135.6	533.4	7.6	186.9	727.9
1937 . .	380.7	134.8	515.5	14.2	203.8	733.5
1938 . .	339.5	131.1	470.6	18.9	211.3	700.8
1939 . .	332.8	132.9	465.7	21.7	233.3	720.7
1940 . .	327.1	129.0	456.1	25.0	255.9	737.0
1941 . .	332.9	133.6	466.5	34.5	299.3	800.3
1942 . .	412.7	144.3	557.0	48.6	434.4	1,040.0
1943 . .	537.0	149.0	686.0	63.7	544.3	1,294.0
1944 . .	562.1	147.5	709.6	67.5	585.2	1,362.3
1945 . .	558.2	151.3	709.5	68.4	602.5	1,380.4
1946 . .	540.5	160.6	701.1	72.1	623.9	1,397.1

between 1941 and 1944, but in 1945 and 1946 with the war over they again began to decline. Conversions from railway to motor bus or trolley coach service have, of course, been the principal cause of their decline.

In Chart XI the percentage distribution of transit operating revenues among the several types of service in each of the years from 1926 to 1946 is presented graphically. It brings out even more sharply the decline of the surface railway and the rise of the motor bus and trolley coach during this period.

In 1926, 75.63 per cent of all transit revenue was derived from the surface railways, 13.10 per cent from the subway and elevated lines and 11.27 per cent from motor bus service. By 1946 the surface railway's share of the revenue had declined to 38.69 per cent while the share of the motor bus had climbed to 44.66 per cent. The trolley coach which had not been in the picture in 1926 accounted for 5.16 per cent of the revenue in 1946. The remain-

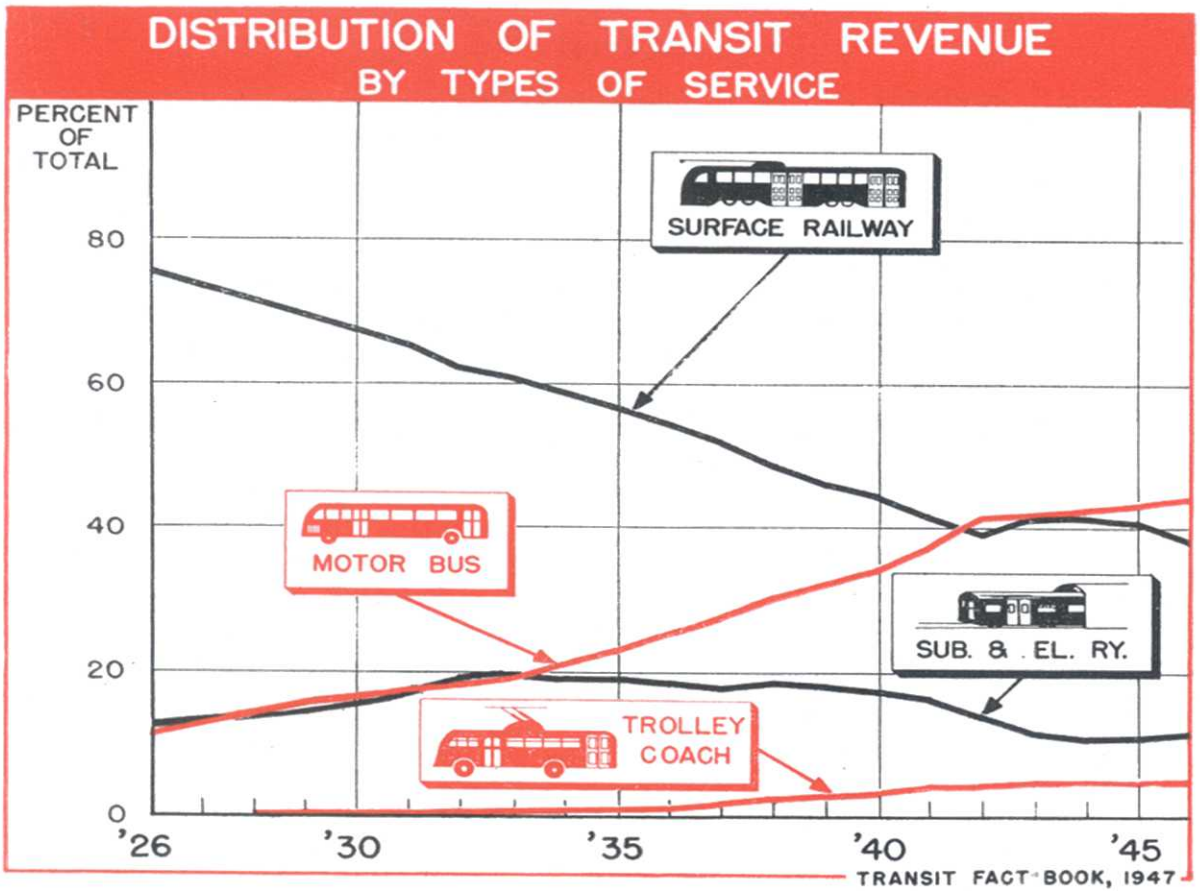

CHART XI

ing 11.49 per cent of the revenue in 1946 came from the subway and elevated service. The revenue from subway and elevated service did not decline between 1926 and 1946 but it did not increase as much as the total transit revenue.

It is an interesting commentary on the underlying trend of transit traffic that while traffic on the surface railways increased during the war years 1941 to 1944 inclusive the per cent of the total which that traffic represented continued to decline except in one year, 1943. In 1939 the surface railways accounted for 44.39 per cent of the total. By 1942 the per cent had dropped to 39.68. In 1943 it increased to 41.50 and then declined again to 41.26 in 1944. By 1946 it had slipped down to 38.69 per cent the lowest it has ever been. In contrast to this the motor buses and trolley coaches though hampered by restrictions throughout the war period nevertheless increased their per cent of the total traffic with each succeeding year, the bus from 34.72 per cent in 1940 to 44.66 in 1946 and the trolley coach from 3.39 per cent in 1940 to 5.16 per cent in 1946.

TABLE NO. 11

Trend and Distribution of Transit Passenger Revenue in the United States by Types of Service—1926-1946

CAL-ENDAR YEAR	RAILWAY			TROLLEY COACH	MOTOR BUS	GRAND TOTAL
	SURFACE (Millions)	SUBWAY AND ELEVATED (Millions)	TOTAL (Millions)	(Millions)	(Millions)	(Millions)
1926 . .	$728.6	$134.4	$863.0	. . . . .	$115.5	$978.5
1927 . .	705.1	140.6	845.7	. . . . .	131.1	976.8
1928 . .	679.5	143.7	823.2	$ .3	142.3	965.8
1929 . .	667.9	149.9	817.8	.6	159.9	.978.3
1930 . .	595.1	148.9	744.0	1.7	153.4	899.1
1931 . .	506.1	139.7	645.8	2.2	142.3	790.3
1932 . .	400.6	127.2	527.8	2.7	126.1	656.6
1933 . .	360.5	122.6	483.1	3.0	120.2	606.3
1934 . .	368.8	126.6	495.4	4.2	137.8	637.4
1935 . .	357.8	127.8	485.6	5.5	151.2	642.3
1936 . .	365.2	131.8	497.0	7.6	180.9	685.5
1937 . .	347.1	130.8	477.9	14.1	197.7	689.7
1938 . .	311.0	128.0	439.0	18.8	205.1	662.9
1939 . .	303.7	130.0	433.7	21.6	226.2	681.5
1940 . .	299.0	128.8	427.8	24.9	248.8	701.5
1941 . .	301.8	131.7	433.5	34.3	291.0	758.8
1942 . .	365.0	139.7	504.7	48.4	426.0	.979.1
1943 . .	490.6	147.5	638.1	63.3	534.2	1,235.6
1944 . .	509.0	146.5	655.5	67.1	574.3	1,296.9
1945 . .	504.9	150.8	655.7	68.0	590.0	1,313.7
1946 . .	488.8	160.1	648.9	71.7	610.9	1,331.5

Passenger Revenue 1926-1946

Transit passenger revenue in the years 1926 to 1946 is presented in Table 11 in the same manner as total operating revenue is presented in Table 10. Passenger revenue is the revenue collected from the passengers in fares and excludes revenue from all other sources. Railway, motor bus and trolley coach passenger revenue are presented separately as well as combined in each year in the table.

Passenger revenue comprises approximately 95 per cent of the total transit operating revenue. There is, therefore, no appreciable difference in their respective trends. What difference there is is found principally on the railways which derive revenue from rents and advertising, and some of them from freight and express operations and the sale of power. The buses also derive revenue from rents and advertising, but generally speaking their non-passenger revenue is not as important as is the case of the railways.

VEHICLE MILES

THE total number of miles operated by transit vehicles and the number operated by surface street cars, subway and elevated cars, motor buses and trolley coaches in the years 1926 to 1946 inclusive are shown in Table 12.

The mileage of the several types of vehicles follows approximately the same trend as their revenues and passenger traffic already discussed in connection with Tables 9 and 11. Due to the smaller passenger-carrying capacity of the motor bus, however, its vehicle mileage represents a larger percentage of the transit total than does either its revenues or the number of passengers it carries.

TABLE NO. 12

Revenue Vehicle Miles Operated in the United States by Each Type of Transit Vehicle—1926-1946

CAL-ENDAR YEAR	RAILWAY			TROLLEY COACH	MOTOR BUS	GRAND TOTAL
	SURFACE (Millions)	SUBWAY AND ELEVATED (Millions)	TOTAL (Millions)	(Millions)	(Millions)	(Millions)
1926 . .	1,821.9	398.1	2,220.0	. . . . .	449.7	2,669.7
1927 . .	1,753.6	410.2	2,163.8	. . . . .	589.2	2,753.0
1928 . .	1,679.1	434.3	2,113.4	1.2	633.4	2,748.0
1929 . .	1,610.3	450.3	2,060.6	2.0	699.8	2,762.4
1930 . .	1,540.4	454.8	1,995.2	6.0	705.8	2,707.0
1931 . .	1,417.9	440.7	1,858.6	7.9	682.5	2,549.0
1932 . .	1,266.7	423.5	1,690.2	9.5	663.3	2,363.0
1933 . .	1,165.7	427.7	1,593.4	10.5	655.1	2,259.0
1934 . .	1,147.7	438.6	1,586.3	14.6	711.1	2,312.0
1935 . .	1,096.6	447.4	1,544.0	19.0	764.0	2,327.0
1936 . .	1,080.9	461.6	1,542.5	26.3	864.2	2,433.0
1937 . .	1,029.2	469.1	1,498.3	49.7	.957.0	2,505.0
1938 . .	922.3	457.4	1,379.7	67.9	.986.4	2,434.0
1939 . .	878.3	469.4	1,347.7	74.9	1,047.4	2,470.0
1940 . .	844.7	470.8	1,315.5	86.0	1,194.5	2,596.0
1941 . .	792.2	472.8	1,265.0	98.4	1,313.0	2,676.4
1942 . .	850.4	469.6	1,320.0	115.7	1,612.0	3,047.7
1943 . .	978.0	461.7	1,439.7	129.7	1,693.0	3,262.4
1944 . .	977.9	461.0	1,438.9	132.3	1,713.3	3,284.5
1945 . .	939.8	458.4	1,398.2	133.3	1,722.3	3,253.8
1946 . .	894.5	458.9	1,353.4	143.7	1,807.2	3,304.3

ELECTRIC POWER

TABLE 13 shows the annual electric power consumption of the transit industry from 1920 to 1946 inclusive. It is also presented graphically in Chart XII.

The total power consumed annually is subdivided between power generated by the transit companies themselves and power purchased from central stations and the total cost of the purchased power is also shown. Finally the table shows also the respective power consumption of the surface railways, the rapid transit lines and the trolley coaches in each year.

TABLE NO. 13

Source and Distribution of Electrical Energy Consumed by the Transit Industry of the United States and Cost of Purchased Power—1920-1946

CALENDAR YEAR	KILOWATT HOURS (IN MILLIONS)						COST OF PURCHASED POWER
	TOTAL CONSUMPTION				GENERATED	PURCHASED	
	RAPID TRANSIT	SURFACE RAILWAY	TROLLEY COACH	TOTAL			
1920 . .	1,256	8,066	. . . . .	9,322	4,313	5,009	$56,101,000
1921 . .	1,278	7,863	. . . . .	9,141	4,031	5,110	57,232,000
1922 . .	1,314	7,887	. . . . .	9,201	3,506	5,695	63,215,000
1923 . .	1,416	7,894	. . . . .	9,310	3,441	5,869	63,972,000
1924 . .	1,488	7,951	. . . . .	9,439	3,356	6,083	65,696,000
1925 . .	1,548	7,995	. . . . .	9,543	3,237	6,306	66,844,000
1926 . .	1,592	8,021	. . . . .	9,613	3,108	6,505	68,303,000
1927 . .	1,641	7,749	. . . . .	9,390	2,976	6,414	65,822,162
1928 . .	1,760	7,410	*	9,170	2,935	6,235	64,221,000
1929 . .	1,824	7,121	*	8,945	2,863	6,082	62,645,000
1930 . .	1,842	6,816	18	8,676	2,770	5,906	60,241,000
1931 . .	1,785	6,283	24	8,092	2,621	5,471	55,804,000
1932 . .	1,715	5,629	29	7,373	2,433	4,940	50,388,000
1933 . .	1,736	5,273	32	7,041	2,377	4,664	47,106,000
1934 . .	1,793	5,265	44	7,102	2,352	4,750	47,025,000
1935 . .	1,852	5,096	57	7,005	2,309	4,696	46,021,000
1936 . .	1,934	5,087	79	7,100	2,271	4,829	46,358,000
1937 . .	1,970	4,894	150	7,014	2,197	4,817	45,595,654
1938 . .	1,921	4,399	204	6,524	2,114	4,410	41,454,000
1939 . .	1,971	4,203	225	6,399	2,164	4,235	38,962,000
1940 . .	1,977	4,050	259	6,286	2,255	4,031	36,682,000
1941 . .	1,986	3,808	296	6,090	2,167	3,923	34,915,000
1942 . .	1,964	4,082	354	6,400	2,227	4,173	36,722,000
1943 . .	1,939	4,658	403	7,000	2,237	4,763	41,000,000
1944 . .	1,940	4,667	412	7,019	2,238	4,781	41,160,000
1945 . .	1,966	4,547	415	6,928	2,130	4,798	42,350,000
1946 . .	1,964	4,380	447	6,791	2,077	4,714	41,200,000

* Included with Surface Railway

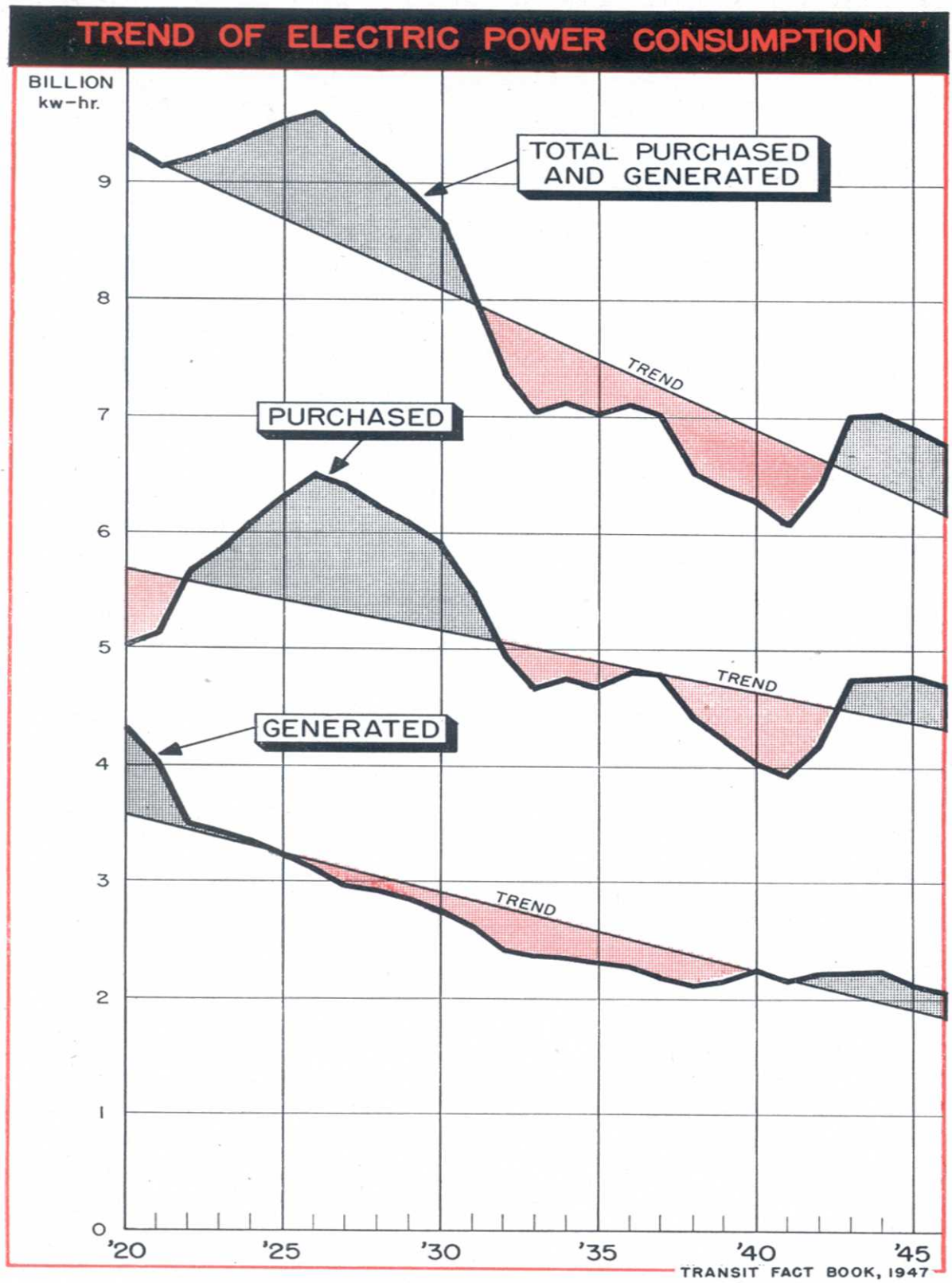

CHART XII

EMPLOYMENT AND PAYROLL

TABLE 14 shows the average number of employees, the annual payroll and the average annual earnings per employee for the years 1931 to 1946 inclusive. In Chart XIII the respective trend of each of these items is presented graphically.

Transit's payroll was at an all-time high in 1946. The increase over 1945 was $81,000,000 or 11.4 per cent. This substantial increase was the result of a rise of $120 in the average annual earnings per employee and an increase of 19,000 in the average number of employees. With the end of the war and the return of employees from the armed services standards of transit service in 1946 were being restored to something like prewar levels. This meant more employees per unit of traffic and as traffic continued at wartime levels it meant also a substantial increase in the total number of transit employees.

TABLE NO. 14

Number of Employees, Annual Payroll and Average Annual Earnings per Employee in the Transit Industry of the United States, 1931-1946

YEAR	AVERAGE NUMBER OF EMPLOYEES	PAYROLL	AVERAGE ANNUAL EARNINGS PER EMPLOYEE
1931	250,000	$ 423,000,000	$1,692
1932	222,000	344,000,000	1,550
1933	206,000	297,000,000	1,442
1934	211,000	314,000,000	1,488
1935	209,000	321,000,000	1,536
1936	212,000	338,000,000	1,594
1937	215,000	356,000,000	1,656
1938	207,000	351,000,000	1,696
1939	204,000	356,000,000	1,745
1940	203,000	360,000,000	1,773
1941	205,000	386,000,000	1,882
1942	219,000	462,000,000	2,110
1943	239,000	554,000,000	2,318
1944	242,000	599,000,000	2,475
1945	242,000	632,000,000	2,612
1946	261,000	713,000,000	2,732

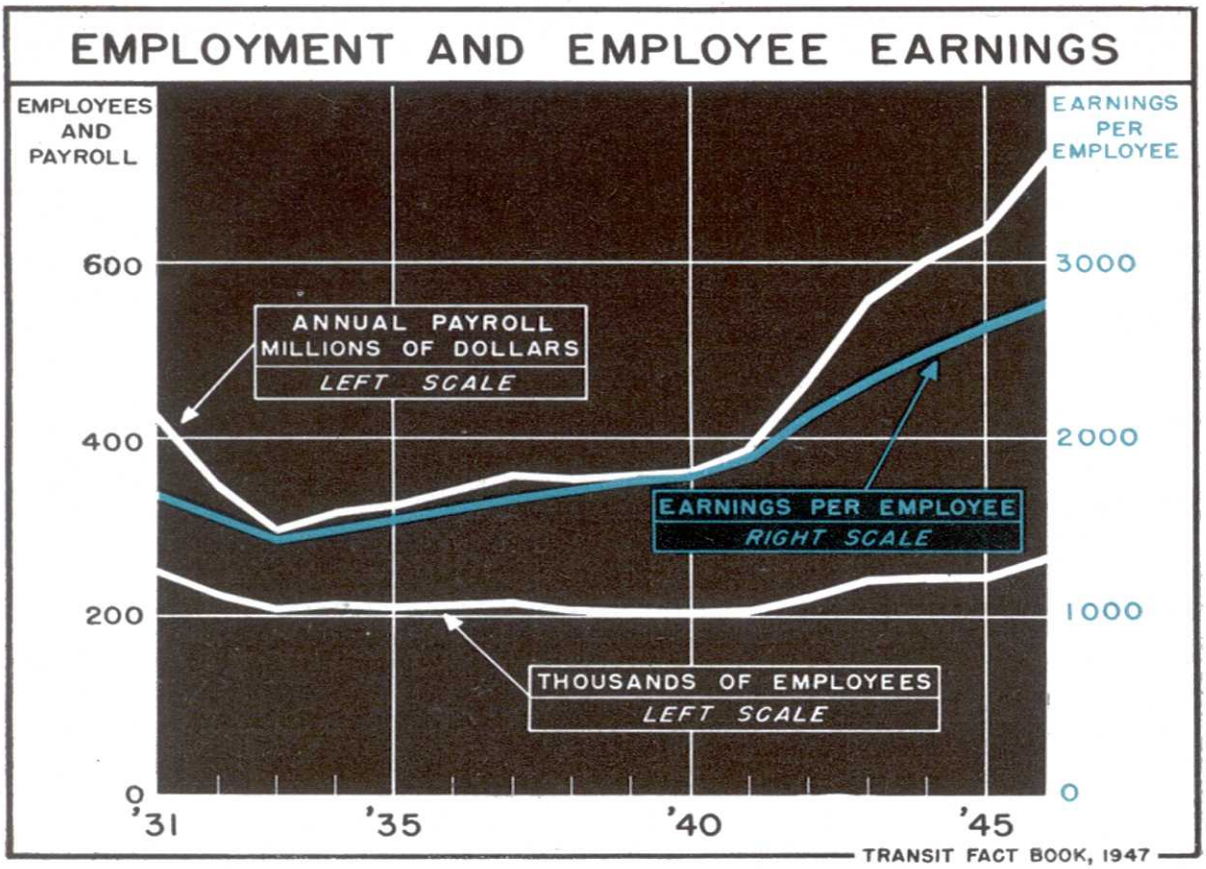

CHART XIII

The low point in transit payroll was in the year 1933. In that year the average annual earnings of transit employees was $1442, the number of employees was 206,000 and the total payroll $297,000,000.

Due principally to the competition of the automobile, the number of transit employees had dropped to 203,000 in 1940, the year before the United States entered the war. But although the number of employees had declined, the average annual earnings of employees had increased to $1773 and the total payroll had risen to $360,000,000.

After 1940 the number of employees began to increase but their rate of increase was held down by the lack of available manpower during the war. Nevertheless, by 1944-45 the number had increased to 242,000. In 1946 with peace restored the number jumped to 261,000. Throughout this period wage rates continued to climb. There was no diminution when the war ended and by 1946 the average annual earnings per employee had reached $2,732. With the increased manpower this brought the total payroll to the record $731,000,000 in 1946.

CAPITAL AND MAINTENANCE EXPENDITURES

CAPITAL and maintenance expenditures of the transit industry in the years 1941 to 1946 inclusive with a forecast of expenditures in 1947 are shown in Table 15 and represented graphically in Charts XIV and XV. Maintenance expenditures are divided between expenditures for materials and expenditures for maintenance labor. Expenditures for fuel and lubricants are also shown.

Capital expenditures in 1946 while substantially exceeding similar expenditures in 1945, fell far short of the forecast made at the beginning of the year. On the other hand, maintenance expenditures in 1946 for both labor and materials were substantially in excess of both the expenditures in 1945 and the forecast for 1946.

The obvious explanation of this development is that transit companies were unable to get all of the new equipment they had

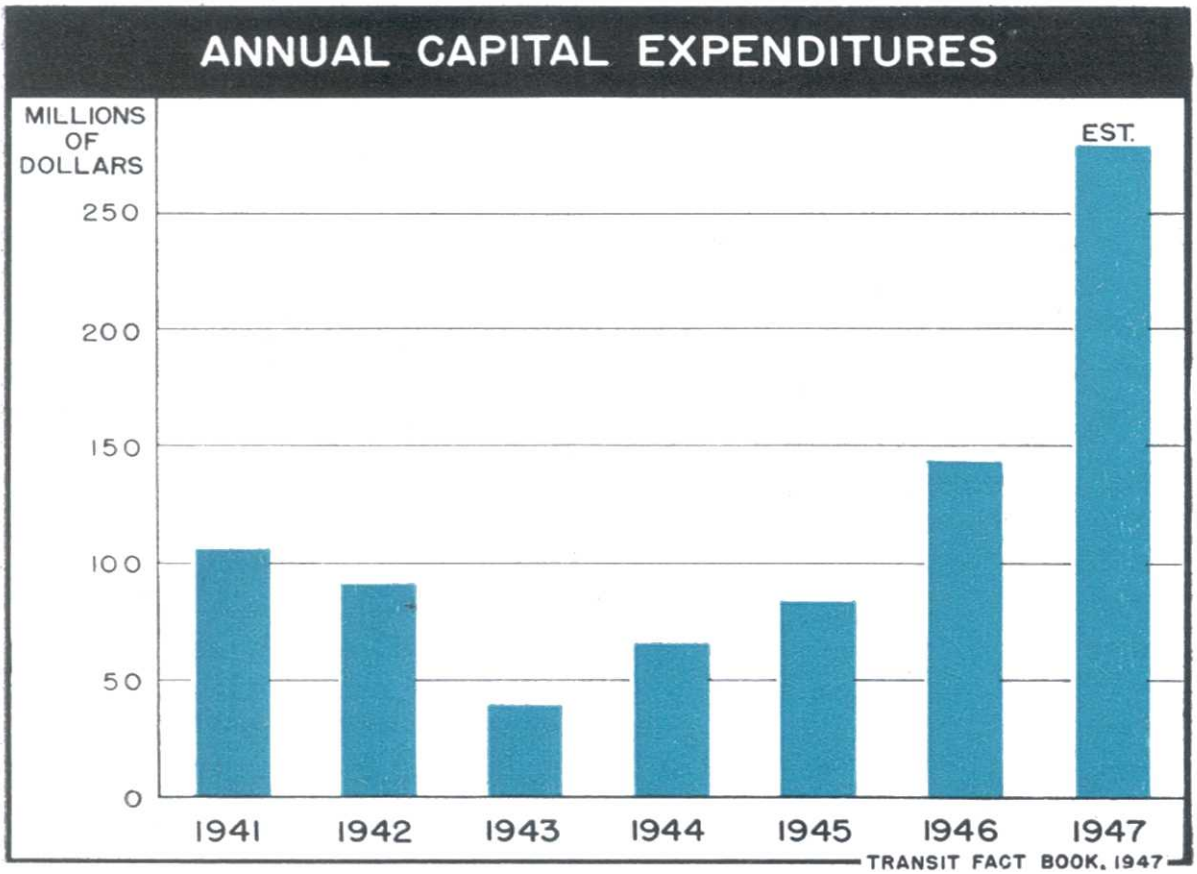

CHART XIV

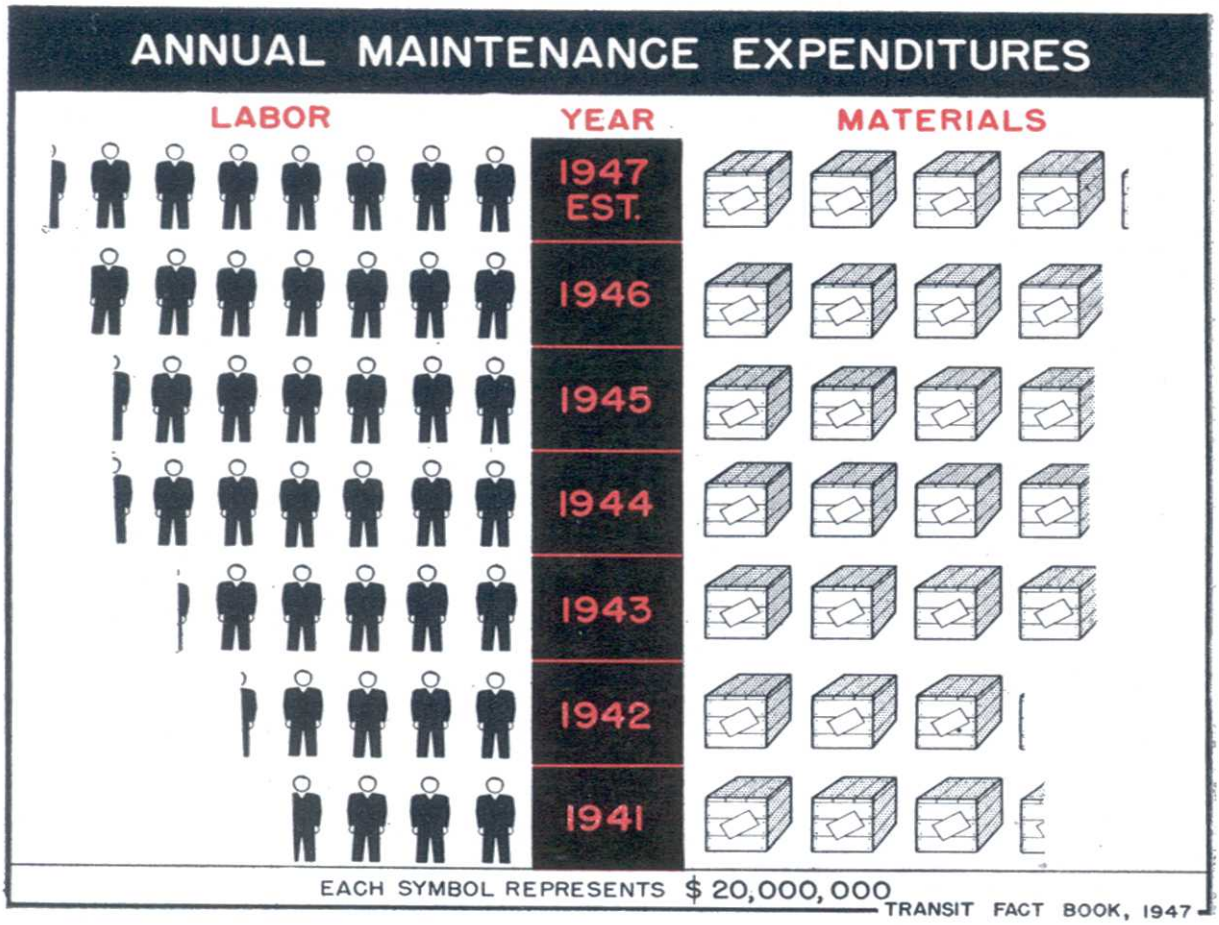

CHART XV

planned purchasing in 1946 and, in consequence, had to spend more than they had contemplated on maintenance. Industrial strikes, shortages of materials and limited manufacturing capacity combined to hold down production of new equipment. At the same time higher wage rates and material prices had the effect of increasing the expenditure for the expanded maintenance program made necessary by the inability to get new equipment.

A very substantial increase in capital expenditures in 1947 is indicated. The forecast is for a total of $279,300,000 in 1947 as compared with an expenditure of $143,700,000 in 1946. This is far in excess of the amounts expended in any of the last 6 years. Most of the increase, it is indicated, will go for new buses, but a substantial increase in the expenditure for new cars is also indicated. A moderate increase in expenditure for maintenance materials and labor is forecasted, but the grand total of $507,800,000 for capital and maintenance expenditures is a formidable sum and if realized will represent a long step in the rehabilitation of the industry's physical property.

TABLE NO. 15

Capital and Maintenance Expenditures of Transit Companies in the United States—1941 to 1946 Inclusive and Forecast for 1947

	1941 (Thousands)	1942 (Thousands)	1943 (Thousands)	1944 (Thousands)	1945 (Thousands)	1946 (Thousands)	1947 FORECAST (Thousands)
CAPITAL EXPENDITURES							
Way and Structures	$ 29,890	$ 11,850	$ 13,600	$ 15,450	$ 18,480	$ 35,100	$ 61,000
Cars	10,614	5,680	1,800	6,800	8,980	11,600	16,700
Buses	55,250	66,900	19,000	39,162	47,500	84,500	171,000
Trolley Coaches	5,421	4,600	1,600	780	2,750	4,700	13,600
Power and Line	4,112	1,960	3,300	3,400	5,300	7,800	17,000
TOTAL CAPITAL EXPENDITURES	$105,287	$ 90,990	$ 39,300	$ 65,592	$ 83,010	$143,700	$279,300
MAINTENANCE EXPENDITURES—MATERIALS							
Way and Structures	$ 19,211	$ 13,100	$ 17,100	$ 16,640	$ 19,340	$ 16,824	$ 18,200
Cars	12,966	15,000	15,300	16,230	17,450	18,262	17,500
Buses	24,576	26,500	35,400	37,320	34,500	38,226	38,100
Trolley Coaches	1,915	2,120	2,300	2,493	2,580	2,838	3,700
Power and Line	6,736	4,100	7,200	3,878	3,960	3,760	3,900
TOTAL MAINTENANCE—MATERIALS	$ 65,404	$ 60,820	$ 77,300	$ 76,561	$ 77,830	$79,910	$ 81,400
MAINTENANCE EXPENDITURES—LABOR							
Way and Structures	$ 30,686	$ 28,400	$ 39,300	$ 43,080	$ 41,340	$48,000	$ 49,400
Cars	20,257	22,300	31,900	36,020	38,150	41,500	42,800
Buses	20,021	28,000	29,000	40,240	41,630	42,000	45,400
Trolley Coaches	1,310	1,290	1,700	1,994	2,200	2,500	3,200
Power and Line	3,124	4,700	6,100	5,009	5,180	5,800	6,300
TOTAL MAINTENANCE—LABOR	$ 75,398	$ 84,690	$108,000	$126,343	$128,500	$139,800	$147,100
TOTAL MAINTENANCE—MATERIALS AND LABOR	$140,802	$145,510	$185,300	$202,904	$206,330	$219,710	$228,500
GRAND TOTAL—CAPITAL & MAINTENANCE EXPENDITURES	$246,089	$236,500	$224,600	$268,496	$289,340	$363,410	$507,800
Fuel and Lubricants	$ 43,950	$ 50,500	$ 55,800	$ 60,020	$ 63,840	$ 63,920	$ 70,000

TRANSIT EQUIPMENT

New Equipment Delivered in 1946

TABLE 16 presents an analysis of the new transit vehicles delivered in 1946. It shows how the new vehicles were distributed among the various population groups into which the country is classified and it gives a distribution of the motor buses according to seating capacity.

More new vehicles were delivered to the cities over 1,000,000 than to any other of the population groups. They took 1427. Cities between 100,000 and 250,000 took 1370, the next largest number, followed by the cities with less than 50,000 population, which took 1182. The smallest number of deliveries, 551, was made to the cities between 50,000 and 100,000.

Deliveries of street cars, 421 in number, were made only to the three largest groups of cities, those having populations above 250,000. On the other hand new trolley coaches were delivered only to the middle group of cities, the total of 266 being delivered to cities between 50,000 and 1,000,000 population. About two-thirds of the trolley coaches, 176 out of 266, went to the cities between 250,000 and 500,000.

TABLE NO. 16

New Transit Equipment Delivered in 1946 Classified According to Population Group and Seating Capacity of Buses

POPULATION GROUP	STREET CAR	TROLLEY COACH	MOTOR BUS (INTEGRAL ONLY)				GRAND TOTAL ALL VEHICLES
	50-58 SEATS	44-45 SEATS	29 SEATS OR LESS	30-39 SEATS	40 SEATS OR MORE	TOTAL	
Over 1,000,000	110	. . . . .	240	117	960	1,317	1,427
500,000—1,000,000	196	34	97	82	336	515	745
250,000—500,000 .	115	176	92	322	335	749	1,040
100,000—250,000 .	. . . . .	46	210	822	292	1,324	1,370
50,000—100,000 . .	. . . . .	10	205	274	62	541	551
Less than 50,000 . .	. . . . .	. . . . .	731	423	28	1,182	1,182
Suburban & Other .	. . . . .	. . . . .	274	389	172	835	835
TOTAL	421	266	1,849	2,429	2,185	6,463	7,150

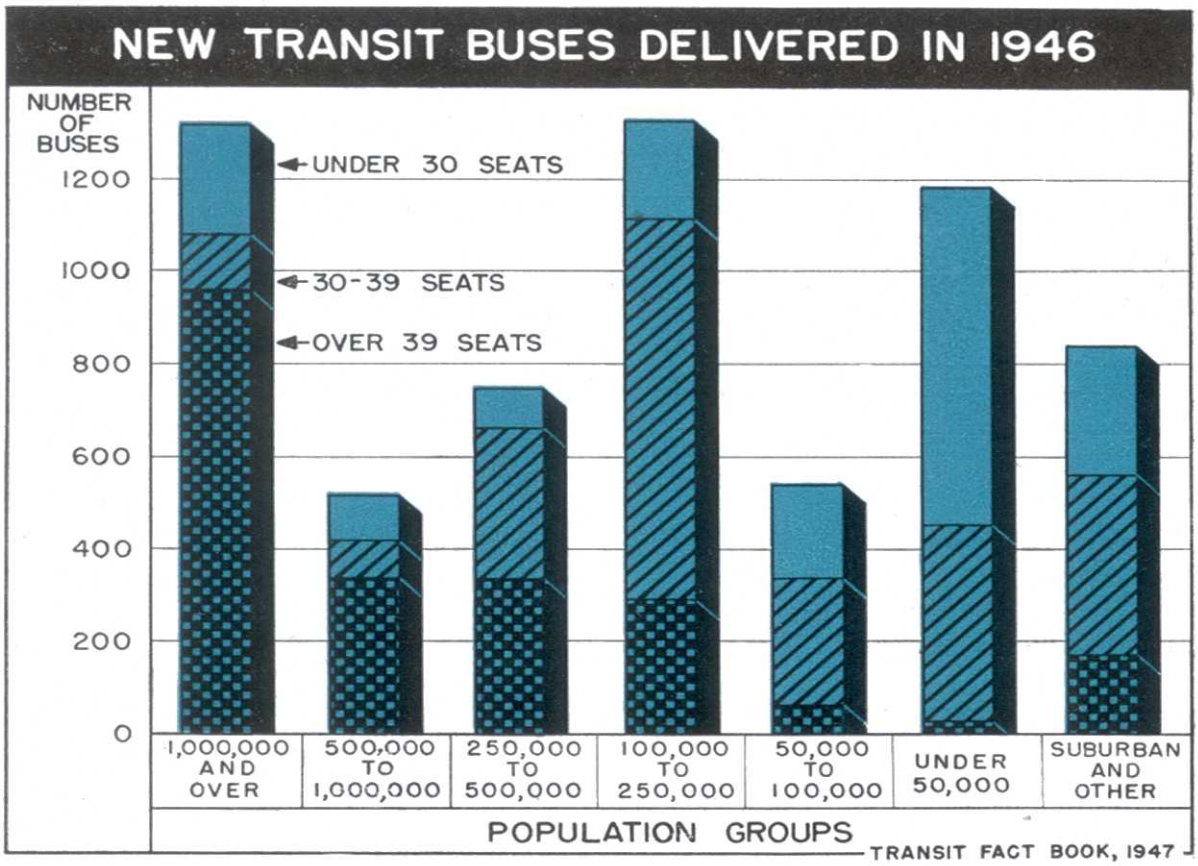

CHART XVI

In the purchase of motor buses in 1947 the larger capacity vehicles were generally favored, more than 71 per cent of the total of 6463 delivered having 30 seats or more and 34 per cent having 40 seats or more. Approximately 29 per cent had less than 30 seats. Generally speaking, most of the large buses went to the largest cities, most of the medium-size buses went to the medium-size cities and most of the small buses went to the smallest cities. Thus 960 of the buses with seating capacities over 40, almost half, went to cities over 1,000,000 population; 822 of the 2429 buses in the 30 to 39-seat class went to cities between 100,000 and 250,000; and 731 of the 1849 buses with less than 30 seats went to cities with less than 50,000 population.

The record of the number of buses in each of the 3 size classes delivered in the last 4 years is given in Table 17. It shows that during the war the small bus predominated in the new deliveries, but that with the restoration of free choice after the war favor swung back to the larger bus. However, in evaluating the significance of these figures it is well to remember that the largest number of buses are in the large cities which favor the large buses.

TABLE NO. 17

Number of Buses in Each Size Class Delivered in the Years 1943-1946

YEAR	29 SEATS OR LESS	30-39 SEATS	40 SEATS OR MORE	TOTAL
1943	847	179	225	1,251
1944	2,423	369	1,015	3,807
1945	1,757	1,183	1,501	4,441
1946	1,849	2,429	2,185	6,463

New Equipment Delivered 1936-1946

Table 18 shows the record of new transit equipment delivered in the years 1936 to 1946.

Before the war deliveries tended to run about 5000 units per year made up of about 4000 buses, 500 street cars and 500 trolley coaches. With the approach of war, deliveries were stepped up, but the increase was entirely in the bus deliveries. In 1942 the peak year, bus deliveries numbered 7200, trolley coaches 336 and street cars only 284.

The 1946 deliveries of 7150 units were the largest of any year

TABLE NO. 18

New Passenger Equipment Delivered to Transit Companies in the United States—1936 to 1946

CAL-ENDAR YEAR	RAILWAY CARS			TROLLEY COACHES	MOTOR BUSES	GRAND TOTAL
	SURFACE	SUBWAY & ELEVATED	TOTAL			
1936	573	0	573	538	4,572	5,683
1937	342	300	642	462	3,908	5,012
1938	145	53	198	184	2,498	2,880
1939	371	150	521	587	3,918	5,026
1940	463	15	478	310	3,984	4,772
1941	462	0	462	411	5,600	6,473
1942	284	0	284	336	7,200	7,820
1943	32	0	32	117	1,251	1,400
1944	284	0	284	55	3,807	4,146
1945	332	0	332	161	4,441	4,934
1946	421	0	421	266	6,463	7,150

during the period covered with the exception of the peak war year 1942.

Equipment Owned in 1946

The total number of revenue passenger vehicles owned by transit companies at the end of 1946 is shown in Table 19 distributed among the population groups in which they are operated.

Buses naturally predominate in number. Of the 90,308 vehicles that make up the total 52,450 or 58 per cent are buses. Railway cars comprise 33,962 units of which 9,232 are subway and elevated cars and 24,730 surface street cars. Thus surface street cars comprise 27 per cent of the total, subway and elevated cars represent about 10 per cent and the remaining 5 per cent is accounted for by the 3,896 trolley coaches.

The distribution of population groups shows that a very large proportion of all transit vehicles is concentrated in the larger cities. This is particularly true of the railway cars of which 72 per cent including the subway and elevated cars are found in cities over 500,000 population. The same groups of cities also account for approximately 46 per cent of all transit vehicles.

Trolley coaches are centered very largely in cities between 250,000 and 500,000. Approximately 45 per cent of all trolley coaches are found in this group, 1763 out of 3,896.

TABLE NO. 19

Transit Passenger Equipment in 1946 Showing Types of Vehicles and Their Distribution by Population Groups

	RAILWAY CARS	TROLLEY COACH	MOTOR BUS	GRAND TOTAL
Subway and Elevated . . .	9,232	. . . . .	. . . . .	9,232
Surface Lines: (Population Group)				
Over 1,000,000	9,080	234	10,140	19,454
500,000— 1,000,000 . . .	6,270	529	5,930	12,729
250,000—500,000	4,180	1,763	6,920	12,863
100,000—250,000	1,560	751	9,450	11,761
50,000—100,000	1,430	383	7,520	9,333
Less Than 50,000	710	236	7,380	8,326
Suburban and Other	1,500	. . . . .	5,110	6,610
TOTAL	33,962	3,896	52,450	90,308

In the smaller cities the motor bus is supreme. Thus in cities between 50,000 and 100,000 population 81 per cent of the vehicles are buses, and in cities under 50,000, 89 per cent are buses. In local intercity and suburban service buses represent over 77 per cent of the transit vehicles, the balance being surface street cars.

Equipment Distribution 1941-1946

In Table 20 the distribution of the three types of transit equipment by population groups is shown for the years 1941 to 1946 inclusive. It brings out clearly where the shifts from one type of vehicle to another are occurring.

In all groups the total number of vehicles increased between 1941 and 1946. This was naturally to be expected considering the great expansion in transit traffic which occurred in these years. Only the total number of rapid transit cars decreased due entirely to the demolition of the elevated railways in New York City.

The greatest shift in transit vehicle use had its locale in the group of cities between 100,000 and 250,000 population. It is the most interesting feature of this table presenting as it does in actual figures the gradual penetration of the motor bus into the larger cities as the principal vehicle of mass transportation. For it was here, in cities just above 100,000, that it was thought for many years the line would be held against the further progress of the bus as the sole vehicle of mass transportation.

The table shows that from 1941 to 1946 the number of street cars in this group of cities decreased from 2,245 to 1,560. A decrease of 400 occurred between 1945 and 1946 suggesting that if it had not been for the war the decline in the number of street cars would have been greater in the 1941-46 period. In this same period the number of buses in this group increased from 6,331 to 9,450. In 1941 street cars comprised 24.6 per cent of all the vehicles in this group; by 1946 they represent only 13.3 per cent.

The same trend is observable in the figures of the other groups, but not as much progress was made in those groups during this period. In the smaller cities, as has already been pointed out, the bus has almost completed its preemption of the field and this undoubtedly accounts for the smaller gains made in these cities during this particular period. In the larger cities the railways are putting up more resistance, although in the very largest cities, those over 1,000,000 population, the bus has made substantial progress aided by the conversions in New York City.

TABLE NO. 20

Transit Passenger Equipment Showing Types of Vehicles and Their Distribution by Population Groups—1941 to 1946 Inclusive

YEAR	RAPID TRANSIT	SURFACE LINES							TOTAL
		OVER 1,000,000 POPULATION	500,000-1,000,000	250,000-500,000	100,000-250,000	50,000-100 000	LESS THAN 50,000	SUBURBAN AND OTHER	
RAILWAY CARS									
1941 . .	10,578	9,645	6,178	4,690	2,245	1,650	901	1,783	37,670
1942 . .	10,278	9,744	6,249	4,685	2,231	1,644	896	1,781	37,508
1943 . .	10,255	9,790	6,240	4,660	2,230	1,640	900	1,790	37,505
1944 . .	10,105	9,700	6,380	4,570	2,220	1,630	900	1,780	37,285
1945 . .	10,075	9,620	6,420	4,420	1,960	1,610	890	1,760	36,755
1946 . .	9,232	9,080	6,270	4,180	1,560	1,430	710	1,500	33,962
TROLLEY COACHES									
1941 . .	. . . . .	218	362	1,413	567	282	187	. . . . .	3,029
1942 . .	. . . . .	228	443	1,413	699	359	243	. . . . .	3,385
1943 . .	. . . . .	228	473	1,496	699	363	243	. . . . .	3,502
1944 . .	. . . . .	234	479	1,533	702	370	243	. . . . .	3,561
1945 . .	. . . . .	234	495	1,647	724	373	243	. . . . .	3,716
1946 . .	. . . . .	234	529	1,763	751	383	236	. . . . .	3,896
MOTOR BUSES									
1941 . .	. . . . .	8,770	4,681	5,356	6,331	6,205	4,775	3,182	39,300
1942 . .	. . . . .	9,523	6,024	6,723	7,743	6,838	5,607	3,542	46,000
1943 . .	. . . . .	9,600	6,050	6,900	8,150	7,100	5,700	3,600	47,100
1944 . .	. . . . .	9,080	5,680	7,050	8,370	7,620	6,510	4,090	48,400
1945 . .	. . . . .	9,270	5,650	6,520	8,730	7,680	7,060	4,760	49,670
1946 . .	. . . . .	10,140	5,930	6,920	9,450	7,520	7,380	5,110	52,450
TOTAL ALL VEHICLES									
1941 . .	10,578	18,633	11,221	11,459	9,143	8,137	5,863	4,965	79,999
1942 . .	10,278	19,495	12,716	12,821	10,673	8,841	6,746	5,323	86,893
1943 . .	10,255	19,618	12,763	13,056	11,079	9,103	6,843	5,390	88,107
1944 . .	10,105	19,014	12,539	13,153	11,292	9,620	7,653	5,870	89,246
1945 . .	10,075	19,124	12,565	12,587	11,414	9,663	8,193	6,520	90,141
1946 . .	9,232	19,454	12,729	12,863	11,761	9,333	8,326	6,610	90,308

Transit Equipment Since 1926

The total number of units of passenger equipment owned by the transit industry of the United States in the years 1926 to 1946 inclusive is shown in Table 21, classified according to type of vehicle. In Chart XVII the record is presented graphically.

Again the progress of conversion from street railway to motor bus is the most striking feature of the record. Over the 21-year period while the number of surface street cars was decreasing from 62,857 to 24,730, the number of motor buses was increasing from 14,400 to 52,450, a shrinkage of 61 per cent in the case of one and an expansion of 264 per cent in the case of the other. Trolley coaches do not get into the picture until 1928, but between that year and 1946 they increased from 41 to 3,896. The number of subway and elevated cars increased from 8,909 in 1926 to 11,205 in 1938, but the razing of the elevated lines in New York reduced their number to 9,232 in 1946 only 323 more than in 1926.

Although 7150 new passenger vehicles were delivered in 1946 the total number of vehicles at the end of the year was only 167

TABLE NO. 21

Trends of Transit Passenger Equipment in the United States—1926 to 1946

CAL-ENDAR YEAR	RAILWAY CARS			TROLLEY COACH	MOTOR BUS	GRAND TOTAL
	SURFACE	SUBWAY AND ELEVATED	TOTAL			
1926 . .	62,857	8,909	71,766	. . . . .	14,400	86,166
1927 . .	61,379	8,957	70,336	. . . . .	18,000	88,336
1928 . .	58,940	9,611	68,551	41	19,700	88,292
1929 . .	56,980	9,983	66,963	57	21,100	88,120
1930 . .	55,150	9,640	64,790	173	21,300	86,263
1931 . .	53,120	9,638	62,758	225	20,700	83,683
1932 . .	49,500	10,434	59,934	269	20,200	80,403
1933 . .	47,700	10,424	58,124	310	20,200	78,634
1934 . .	43,700	10,418	54,118	441	22,200	76,759
1935 . .	40,050	10,416	50,466	578	23,800	74,844
1936 . .	37,180	10,923	48,103	1,136	26,800	76,039
1937 . .	34,180	11,032	45,212	1,655	27,500	74,367
1938 . .	31,400	11,205	42,605	2,032	28,500	73,137
1939 . .	29,320	11,052	40,372	2,184	32,600	75,156
1940 . .	26,630	11,032	37,662	2,802	35,000	75,464
1941 . .	27,092	10,578	37,670	3,029	39,300	79,999
1942 . .	27,230	10,278	37,508	3,385	46,000	86,893
1943 . .	27,250	10,255	37,505	3,501	47,100	88,106
1944 . .	27,180	10,105	37,285	3,561	48,400	89,246
1945 . .	26,680	10,075	36,755	3,716	49,670	90,141
1946 . .	24,730	9,232	33,962	3,896	52,450	90,308

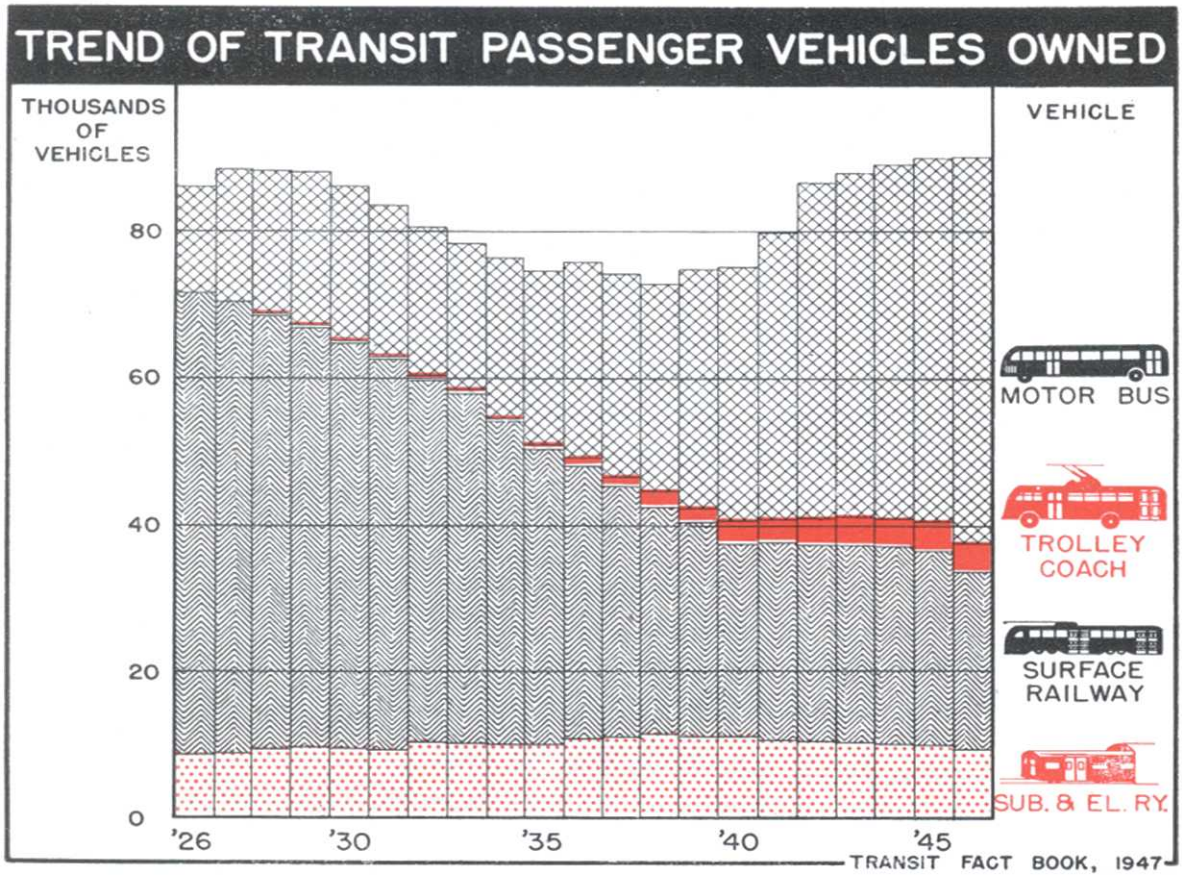

CHART XVII

more than at the end of 1945. Nearly all of the new equipment went to replace old equipment and in the case of the buses to replace street cars in the cities where conversions were made to buses. There was a net decrease of 1950 street cars after the delivery of 421 new P.C.C. cars. New buses delivered in 1946 numbered 6463, but the net increase in the total at the end of the year was only 2780. The difference represents old buses replaced. Even the trolley coaches had a substantial number of retirements in 1946 caused principally by several companies discontinuing this type of operation. The net increase in trolley coaches at the end of the year was 180 after the delivery of 266 new vehicles.

Over the years the total number of transit vehicles tends to follow the fluctuations in traffic fairly closely. There is some lag but it is gradually taken up. Thus between 1926 and 1930, when traffic was stagnant, the total number of vehicles showed very little variation, but when traffic went off after 1930 the number of vehicles declined also and continued to decline until 1939 when the turn in the tide of traffic made the expansion of transit carrying capacity a necessity.

Capacity of Transit Vehicles

The total passenger capacity of all transit passenger vehicles in the United States in the years 1922 to 1946 is shown in Chart XVIII. Total capacity was calculated by taking the average ratio of carrying capacity to seating capacity for the several types of vehicles in service.

There was a slight decrease in transit capacity in 1946. The cause was the retirement of elevated railway cars in New York. There was also a reduction, of course, in surface street car capacity, but this was more than made up by the motor buses substituted. The loss due to the retirement of the elevated railway cars, however, was only partly made up by increased bus capacity.

The maximum passenger carrying capacity of transit vehicles was attained in the year 1928. Subsequently it declined rapidly reaching a low point in 1940. The heavy increase in traffic during the war produced an expansion of capacity which continued to 1945. Due to wartime restrictions on manufacturing production, however, the increase in capacity between 1940 and 1945 fell far

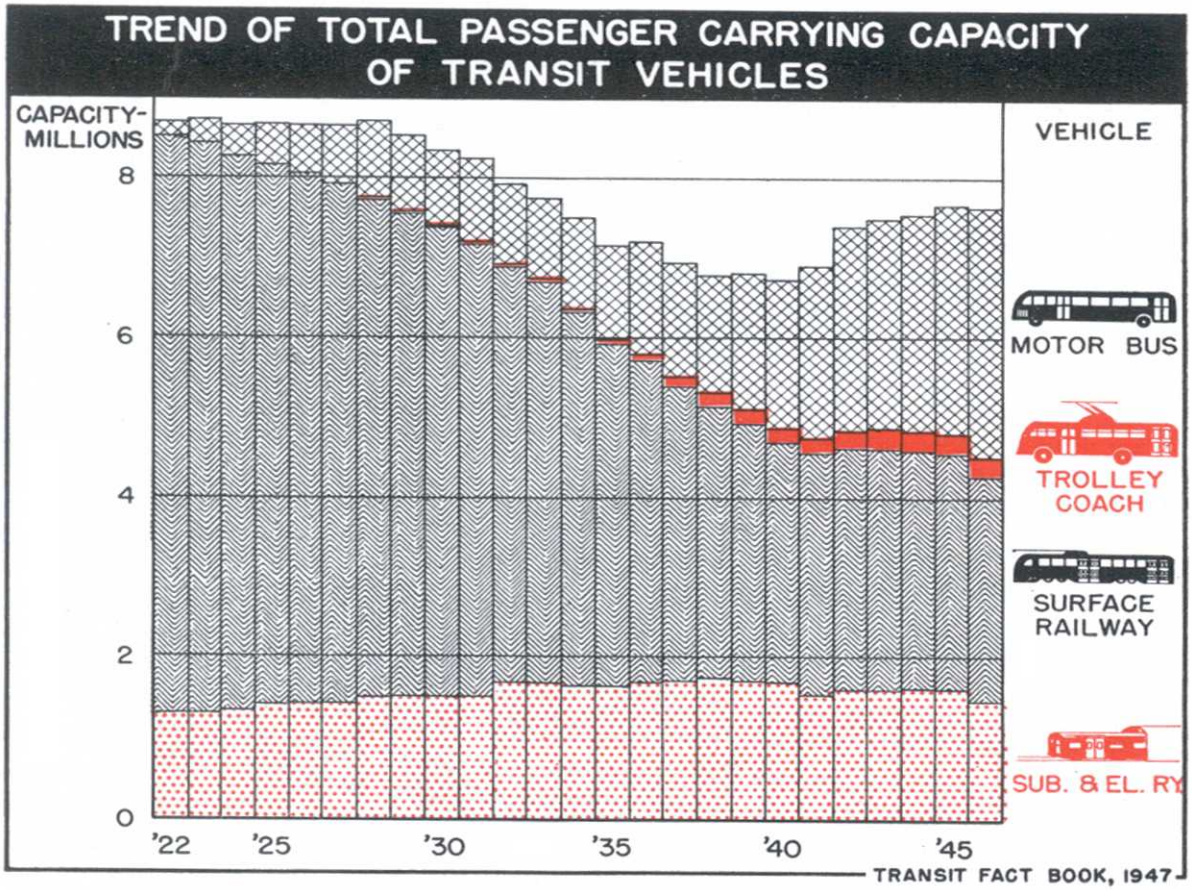

CHART XVIII

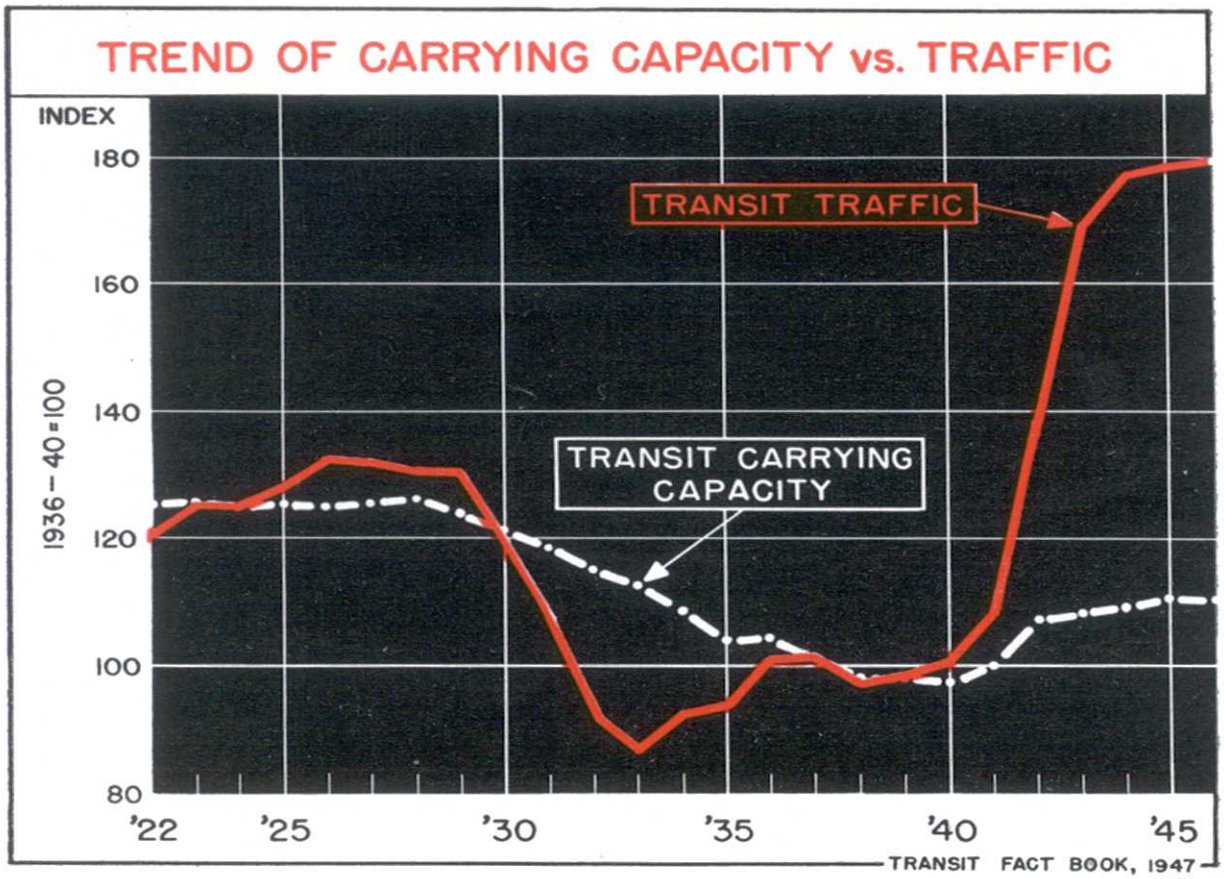

CHART XIX

short of the requirements resulting from the increased traffic. The result was the extraordinary overcrowding of all transit vehicles which characterized the war years and continues in many cities down to the present.

Some idea of this failure of transit capacity to keep pace with the increasing traffic can be obtained from Chart XIX. It shows the respective trends of transit traffic and carrying capacity over the years 1922 to 1946 inclusive. Index numbers have been used to make easier the comparison of trends taking the average value of each in the five years 1936-1940 as 100. These years were selected as the base because they came at the end of the deflation of transit capacity following the depression and it is believed cover a period when carrying capacity and traffic were more nearly in equilibrium than at any other time since 1922.

The chart clearly depicts the lag of capacity behind traffic in the years 1940 to 1946. While the index of traffic was rising from 100.80 in 1940 to 179.77 in 1946, the index of capacity moved only from 97.51 in 1940 to 110.86 in 1945 and then declined to 110.11 in 1946.

TRACK AND ROUTE MILEAGE

TABLE 22 shows the total miles of electric railway track and the total round-trip length of motor bus and trolley coach routes as of the end of 1946 distributed among the several classes of cities and other area heretofore used.

Motor bus routes involve no construction costs; they present only a problem of selection and may be extended or contracted as circumstances dictate with little or no financial sacrifice. Street railway track and trolley coach routes, on the other hand, require heavy expenditure for construction and once constructed may not be changed except at great expense.

This elemental difference is largely responsible for the character of the data in Table 22. The length of motor bus route is more than 5 times the length of electric railway track. As a matter of fact, motor bus routes in 1946 were approximately twice as long as the greatest amount of track the electric railways had at their maximum extent back in 1917 when they had the whole field of local transportation to themselves. Motor buses can readily go

TABLE NO. 22

Total Miles of Electric Railway Track, Motor Bus Route and Trolley Coach Route of the Transit Industry in the United States, 1946 Distributed by Population Groups

	RAILWAY	TROLLEY COACH	MOTOR BUS
Subway and Elevated	1,252	. . . . .	. . . . .
Surface Lines: (Population Group)			
Over 1,000,000	3,010	90	5,900
500,000— 1,000,000	2,230	188	3,310
250,000—500,000	2,130	1,035	9,200
100,000—250,000	1,090	558	11,260
50,000—100,000	970	291	7,910
Less Than 50,000	310	171	5,270
Suburban and Other	5,750	. . . . .	48,300
TOTAL	16,742	2,333	91,150

TABLE NO. 23

Electric Railway Track, Motor Bus Route and Trolley Coach Route of the Transit Industry in the United States, 1926-1946

AS OF DECEMBER 31ST	TOTAL MILES OF RAILWAY TRACK			TROLLEY COACH—MILES OF NEGATIVE OVERHEAD WIRE	MOTOR BUS—MILES OF ROUTE ROUND-TRIP
	SURFACE	SUBWAY AND ELEVATED	TOTAL		
1926 . .	40,570	1,030	41,600	. . . . .	36,900
1927 . .	39,682	1,040	40,722	. . . . .	38,900
1928 . .	38,235	1,065	39,300	39	43,500
1929 . .	36,520	1,080	37,600	59	52,800
1930 . .	34,320	1,080	35,400	146	60,900
1931 . .	32,120	1,080	33,200	194	60,500
1932 . .	30,418	1,130	31,548	251	58,300
1933 . .	28,730	1,170	29,900	281	52,700
1934 . .	27,270	1,230	28,500	423	54,700
1935 . .	25,470	1,230	26,700	548	58,100
1936 . .	24,040	1,260	25,300	859	62,200
1937 . .	22,460	1,310	23,770	1,166	67,000
1938 . .	20,500	1,300	21,800	1,398	70,400
1939 . .	19,300	1,300	20,600	1,543	74,300
1940 . .	18,360	1,240	19,600	1,925	78,000
1941 . .	17,100	1,250	18,350	2,098	82,100
1942 . .	16,950	1,250	18,200	2,330	85,500
1943 . .	16,950	1,260	18,210	2,305	87,000
1944 . .	16,860	1,252	18,112	2,302	87,700
1945 . .	16,480	1,252	17,732	2,370	90,400
1946 . .	15,490	1,252	16,742	2,333	91,150

and serve where railways would never be constructed. An indication of this is found in the amount of bus route outside of the cities. Table 22 shows that 53 per cent of all transit bus routes are located in suburban and other nonurban areas.

In Table 23 the amount of electric railway track and motor bus and trolley coach route at the end of each year since 1926 is given. It shows how electric railway track has contracted and motor bus and trolley coach route have been extended during this 21-year period. The picture presented is practically the same as that presented by the record of equipment during the same period in Table 21. One difference, however, is that while Table 21 shows an increase in the number of trolley coaches between 1945 and 1946, Table 23 shows a decrease in the number of trolley coach route miles between these years. The decrease is probably a temporary one due to the elimination of trolley coaches by three small operators in 1946.

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